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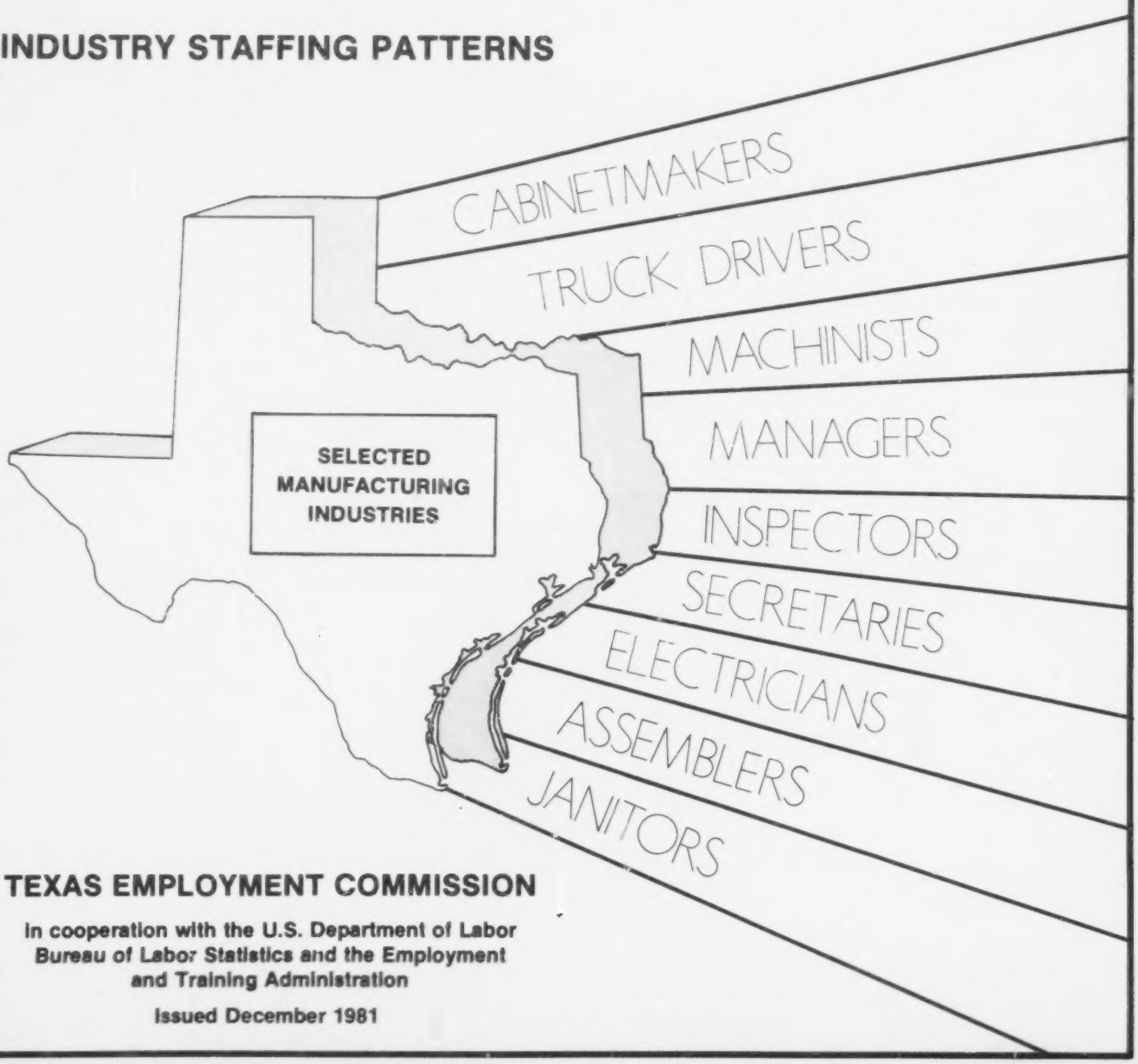
TEXAS OCCUPATIONAL EMPLOYMENT STATISTICS

INDUSTRY STAFFING PATTERNS



TEXAS EMPLOYMENT COMMISSION

In cooperation with the U.S. Department of Labor
Bureau of Labor Statistics and the Employment
and Training Administration

Issued December 1981

TEXAS OCCUPATIONAL EMPLOYMENT STATISTICS

INDUSTRY STAFFING PATTERNS FOR SELECTED MANUFACTURING INDUSTRIES

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PREFACE

This publication summarizes the results of an occupational employment survey of selected Manufacturing Industries in Texas.

This report is the product of a Federal-State Cooperative Program. The Bureau of Labor Statistics developed the procedures and provided technical assistance. The Employment and Training Administration funded the project and was responsible for the administrative aspects of the program. The Texas Employment Commission collected and analyzed the data, provided the necessary computer services, and published these findings.

Special thanks are extended to the many cooperating employers who provided the survey data which made this publication possible.

TABLE OF CONTENTS

	Page
Preface	iii
Introduction	1
Methodology	3
Considerations of the Uses of the Estimates	5
Staffing Patterns for Selected Industries	7
Manufacturing Plants by Standard Industrial Classification Major Group as of June 1980	9
Manufacturers' Capital Expenditures for New Plant and Equipment Ranked by State, 1951 Through 1978	10
Industry Characteristics	11
SIC 20, Food and Kindred Products	12
SIC 22, Textile Mill Products	36
SIC 23, Apparel and Other Finished Products Made From Fabrics and Similar Materials	42
SIC 24, Lumber and Wood Products, Except Furniture	59
SIC 25, Furniture and Fixtures	76
SIC 26, Paper and Allied Products	90
SIC 27, Printing, Publishing, and Allied Industries	103
SIC 28, Chemicals and Allied Products	114
SIC 29, Petroleum Refining and Related Industries	124

TABLE OF CONTENTS (CONTINUED)

Page

Staffing Patterns for Selected Industries (Continued)

SIC 30, Rubber and Miscellaneous Plastics Products..... 129

SIC 31, Leather and Leather Products..... 135

SIC 32, Stone, Clay, Glass, and Concrete Products..... 139

SIC 33, Primary Metal Industries..... 145

SIC 34, Fabricated Metal Products, Except Machinery and Transportation Equipment..... 155

SIC 35, Machinery, Except Electrical..... 165

SIC 36, Electrical and Electronic Machinery, Equipment, and Supplies..... 175

SIC 37, Transportation Equipment..... 185

SIC 38, Measuring, Analyzing, and Controlling Instruments; Photographic, Medical, and Optical Goods; Watches and Clocks..... 197

SIC 39, Miscellaneous Manufacturing Industries..... 200

Glossary of Terms..... 207

Bibliography..... 209

TABLES

		Page
Table 1	SIC 20, Food and Kindred Products.....	13
Table 2	SIC 201, Meat Products.....	18
Table 3	SIC 202, Dairy Products.....	21
Table 4	SIC 203, Canned and Preserved Fruits and Vegetables..	23
Table 5	SIC 204, Grain Mill Products.....	25
Table 6	SIC 206, Sugar and Confectionery Products.....	28
Table 7	SIC 208, Beverages.....	30
Table 8	SIC 209, Miscellaneous Food Preparations and Kindred Products.....	33
Table 9	SIC 22, Textile Mill Products.....	37
Table 10	SIC 221, Broad Woven Fabric Mills, Cotton.....	40
Table 11	SIC 23, Apparel and Other Finished Products Made From Fabrics and Similar Materials.....	43
Table 12	SIC 231, Men's, Youths', and Boys' Suits, Coats, and Overcoats.....	47
Table 13	SIC 233, Women's, Misses', and Juniors' Outerwear....	49
Table 14	SIC 234, Women's, Misses', Children's, and Infants' Undergarments.....	52
Table 15	SIC 238, Miscellaneous Apparel and Accessories.....	54
Table 16	SIC 239, Miscellaneous Fabricated Textile Products...	56
Table 17	SIC 24, Lumber and Wood Products, Except Furniture...	60
Table 18	SIC 242, Sawmills and Planing Mills.....	64

TABLES (CONTINUED)

		Page
Table 19	SIC 243, Millwork, Veneer, Plywood, and Structural Wood Members	67
Table 20	SIC 244, Wood Containers	70
Table 21	SIC 245, Wood Buildings and Mobile Homes	72
Table 22	SIC 249, Miscellaneous Wood Products	74
Table 23	SIC 25, Furniture and Fixtures	77
Table 24	SIC 251, Household Furniture	81
Table 25	SIC 252, Office Furniture	84
Table 26	SIC 253, Public Building and Related Furniture	86
Table 27	SIC 254, Partitions, Shelving, Lockers, and Office and Store Fixtures	88
Table 28	SIC 26, Paper and Allied Products	91
Table 29	SIC 262, Paper Mills, Except Building Paper Mills	95
Table 30	SIC 264, Converted Paper and Paperboard Products, Except Containers and Boxes	97
Table 31	SIC 265, Paperboard Containers and Boxes	100
Table 32	SIC 27, Printing, Publishing, and Allied Industries	104
Table 33	SIC 271, Newspapers: Publishing, Publishing and Printing	108
Table 34	SIC 276, Manifold Business Forms	111
Table 35	SIC 285, Paints, Varnishes, Lacquers, Enamels, and Allied Products	115
Table 36	SIC 286, Industrial Organic Chemicals	117
Table 37	SIC 289, Miscellaneous Chemical Products	121

TABLES (CONTINUED)

		Page
Table 38	SIC 291, Petroleum Refining.....	125
Table 39	SIC 306, Fabricated Rubber Products, Not Elsewhere Classified.....	130
Table 40	SIC 307, Miscellaneous Plastics Products.....	132
Table 41	SIC 314, Footwear, Except Rubber.....	136
Table 42	SIC 324, Cement, Hydraulic.....	140
Table 43	SIC 327, Concrete, Gypsum, and Plaster Products.....	142
Table 44	SIC 332, Iron and Steel Foundries.....	146
Table 45	SIC 333, Primary Smelting and Refining of Nonferrous Metals.....	150
Table 46	SIC 335, Rolling, Drawing, and Extruding of Nonferrous Metals.....	153
Table 47	SIC 341, Metal Cans and Shipping Containers.....	156
Table 48	SIC 344, Fabricated Structural Metal Products.....	158
Table 49	SIC 349, Miscellaneous Fabricated Metal Products.....	162
Table 50	SIC 352, Farm and Garden Machinery and Equipment.....	166
Table 51	SIC 354, Metalworking Machinery and Equipment.....	168
Table 52	SIC 358, Refrigeration and Service Industry Machinery.....	171
Table 53	SIC 362, Electrical Industrial Apparatus.....	176
Table 54	SIC 366, Communication Equipment.....	179
Table 55	SIC 369, Miscellaneous Electrical Machinery, Equipment, and Supplies.....	182
Table 56	SIC 371, Motor Vehicles and Motor Vehicle Equipment..	186

TABLES (CONTINUED)

		Page
Table 57	SIC 372, Aircraft and Parts.....	189
Table 58	SIC 373, Ship and Boat Building and Repairing.....	194
Table 59	SIC 384, Surgical, Medical, and Dental Instruments and Supplies.....	198
Table 60	SIC 394, Toys and Amusement, Sporting, and Athletic Goods.....	201
Table 61	SIC 399, Miscellaneous Manufacturing Industries.....	203

INTRODUCTION

The Occupational Employment Statistics (OES) Program is a part of a Federal-State Cooperative Program that furnishes current estimates of industry staffing patterns by occupation through periodic surveys of the nonfarm wage and salary sector of the economy. Texas has been involved in this Program since 1974 and is one of 46 participating states.

The OES Program is designed to: (1) provide accurate profiles of occupational resources by industry and trends in the number of workers employed by occupation, (2) aid in projections of future manpower requirements by industry and occupation, and (3) identify emerging and disappearing occupations. This information helps in the development of educational and training programs and provides valuable information for employment counselors and manpower planners. Individual firms will be able to compare their occupational staffing patterns within and between industries at the state and national level. The data will also be used to refine and modify the worker-demand projections generated through the Industry-Occupation Matrix System.

This report presents the occupational staffing patterns for selected Texas manufacturing industries. Data was provided by employers for the appropriate survey month (April, May, or June of 1980). Separated by detailed industry group, the occupational tables show employment estimates, relative error, and percentage distribution for listed occupations.

This publication and other surveys for different sectors of the economy will be updated at three-year intervals to provide a better basis for decision-making at all levels of human resource planning and development.

METHODOLOGY

SAMPLE DESIGN

The sample for the Occupational Employment Statistics Manufacturing Survey consisted of establishments selected from a universe listing of all firms covered by the Texas Unemployment Compensation Act during the second quarter, 1979. The universe was stratified into three-digit Standard Industrial Classification (SIC) codes and by six employment size classes: 4-9, 10-19, 20-49, 50-99, 100-249, and 250 plus.

Establishments with 250 or more employees were automatically included in a separate size class with certainty. Firms having less than 250 employees were randomly sampled using a predetermined weighting pattern. The sample consisted of 4,556 firms with a represented benchmark employment of 1,030,854.

SAMPLING ERROR

The sampling error is an arithmetic measure of the precision of the estimate. It is the error that results from the difference between data obtained if the same survey methods were applied to collecting identical information from the entire population (universe).

The relative errors express the absolute sampling error of an estimate as a percentage of that estimate. This allows for comparison of the precision of estimates of different magnitudes. In this report, the chances are two out of three (68 percent) that the results of such a complete survey of all firms would not differ by plus or minus one relative standard error from the OES occupational estimates, and an interval of two relative standard errors will yield a 95 percent confidence level.

For example, the OES estimate of employment in Food and Kindred Products (SIC 20) for the number of Chemists employed was 200 with a relative standard error of 13.26 percent. The chances are two out of three that the true number of workers employed in that occupation at the time of the survey was between 173 and 227 ($200 \pm .1326 \times 200$), and we may be 95 percent certain that the true number fell between 146 and 254 ($200 \pm 2 \times .1326 \times 200$). The relative standard error allows the user to judge, with a given degree of confidence, the quality of any particular occupational estimate. It is a measure of the relative dispersion within the data collected, and indicates the occupational coefficient of variation of the population from which the sample was drawn.

NONSAMPLING ERROR

A survey of this design and complexity is going to have a small degree of nonsampling error. Examples of these errors are faulty questionnaire design, inaccuracy of data furnished, ineffective processing techniques, and nonresponse. The possibility of errors in the questionnaire design, in the data furnished, and in data processing was recognized from the start of the survey. Every effort was made to avoid and control them.

The nonresponse area was handled to a large degree by the built-in variables of the sampling and estimating process. This process takes into consideration that the occupational distribution of the nonreporting sample unit in a given three-digit employment size class is the same as among the reporting establishments of that size class.

ESTIMATING PROCEDURE

A ratio method (established statistical procedure) was used throughout the report. Any given size class of any given industry represents an estimating cell. All establishments in a given cell are assigned a sample weight which is the inverse of the sampling ratio. There is a direct relationship between employment and the number of units within a size class to determine the ratio or the probability of sample selection.

The employment for any specific occupation in each establishment is inflated by its sample weight and summed for all sample establishments in the cell. A ratio is then derived of the weighted employment for each occupation to the weighted reported total employment. This ratio is then multiplied by the benchmark employment for that estimating cell as of the appropriate survey month (April, May, or June 12, 1980), thus yielding the occupational make-up of the estimating cell for that date.

Like occupational employments are summed across all employment size classes within each three-digit SIC to arrive at a total industry employment for each occupation. Two-digit estimates of occupational employment were derived by summing estimates across three-digit SIC industries.

COLLECTION PROCEDURES

The majority of the data was collected by mail. Survey operations included an initial mail out and two follow-ups to nonrespondents. The telephone was used extensively to prompt nonrespondents to furnish survey data and to clarify respondent information. Personal visits were made to the larger nonrespondent firms.

CONSIDERATIONS OF THE USES OF THE ESTIMATES

RELATIVE ERROR

Relative error is a measure of precision and expresses the absolute sampling error of an estimate as a percentage of that estimate. From an accuracy standpoint, the higher the relative error--the less accurate the estimate. If relative errors exceeded 50 percent, the employment from these occupations was merged with the employment of the "all other" residual category that was relevant to them.

Throughout the tables, the relative error is computed only for specific occupations. In the residual categories and in the occupational groupings, the relative error is noted by "na" (not applicable).

ROUNDING ERRORS AND OCCUPATIONS WITH LESS THAN 30 EMPLOYMENT

All percentage estimates were carried out to two decimal places with the exception of the percent of establishments reporting the occupation. These percentages were rounded to the nearest whole number.

In each Standard Industrial Classification (SIC), many more occupations were surveyed than are actually shown in the tables. Occupations which had employment of less than 30 were suppressed, and their employment was added to the residual category for their major occupational group.

INDUSTRIAL CLASSIFICATION WITH LESS THAN 1,000 BENCHMARK EMPLOYMENT

Some industry groups surveyed had an insignificant amount of benchmark employment--less than 1,000. In order for the user to have meaningful occupational staffing patterns, the industry was suppressed or collapsed to the major two-digit industry group totals.

STAFFING PATTERNS FOR SELECTED INDUSTRIES

MANUFACTURING PLANTS
BY
STANDARD INDUSTRIAL CLASSIFICATION MAJOR GROUP
AS OF JUNE 1980

SIC Major Group	Group Name	Number of Plants
20	Food and Kindred Products	1,448
21	Tobacco Products	1
22	Textile Mill Products	104
23	Apparel and Other Finished Products Made From Fabrics and Similar Materials	808
24	Lumber and Wood Products, Except Furniture	897
25	Furniture and Fixtures	710
26	Paper and Allied Products	368
27	Printing and Allied Industries	2,069
28	Chemicals and Allied Products	1,091
29	Petroleum Refining and Related Industries	252
30	Rubber and Miscellaneous Plastics Products	845
31	Leather and Leather Products	167
32	Stone, Shell, Clay, Glass, and Concrete Products	1,172
33	Primary Metal Industries	392
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	2,663
35	Machinery, Including Selected Electrical and Electronic Machinery	2,456
36	Electrical and Electronic Machinery, Equipment, and Supplies	753
37	Transportation Equipment	639
38	Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks	543
39	Miscellaneous Manufacturing Industries	819

Total number of plants in Directory: 18,526. Many are involved in more than one industrial category.

Source: 1979-1980 Directory of Texas Manufacturers. Austin, Texas: Bureau of Business Research, The University of Texas at Austin.

MANUFACTURERS' CAPITAL EXPENDITURES FOR NEW PLANT AND EQUIPMENT RANKED BY STATE, 1951 THROUGH 1978[a]

[a] Source: *Division of Research and Statistics*
Ohio Bureau of Employment Services

INDUSTRY CHARACTERISTICS

The manufacturing industry in Texas has undergone major changes in the 1970's and early 1980's. For many decades, this industry was mainly concerned with processing raw materials produced in Texas, such as petroleum, other minerals, and agricultural products. While these activities are still important, the new direction of the Texas economy is toward diversification.

New factories are turning out hundreds of products never manufactured in this region until recent years; products previously shipped into Texas from other parts of the country. A sample of products now manufactured and marketed nationwide includes such items as: electronic wrist watches, automobile radios, drugs and cosmetics, plastic packaging materials, and recreational boats.

The late seventies brought Texas a wave of industrial expansion tempered by uncertainty. Although the recession of the mid-seventies was past, industrial employment remained a problem in some cities--less in Texas than in other states or the Nation. More critical to Texas was the petroleum shortage which threatened the economic status of some of the State's major manufacturers.

Even though some of Texas' fastest growing industrial centers are not among the very largest cities, most manufacturing plants are located in the State's 25 SMSA's (cities with 50,000 or more population). The Dallas-Fort Worth Area, the most populous SMSA, has the largest number of manufacturing plants. The Houston SMSA ranks second. These two areas employ approximately 29 and 20 percent of the respective manufacturing workers. The San Antonio and Beaumont-Port Arthur Areas have approximately the same employment distribution (5 percent). Of the smaller manufacturing centers, the Longview Area has expanded its industrial base more rapidly than any other in recent years. Austin, not an important city in the past, has also attracted many new factories.

SIC 20
FOOD AND KINDRED PRODUCTS

In the Nondurable Goods sector, the Food and Kindred Products Industry holds the largest employment--an estimated 99,000 workers as of June 1980. From a dollar standpoint, the most valuable producer and employment leader within this industry is the Meat Products (SIC 201) segment, representing approximately 26,300 (27 percent) of the total employment.

Bottled and canned beverages, bakery goods, and dairy products contributed heavily to the total production, but are mainly for consumption at the local or regional level. Texas also has a strong national market for canned, frozen, and specialty foods--including seafoods and Mexican foods.

Considering the seasonal and cyclical patterns of the Food Industry, the average employment growth has not been as strong as in other manufacturing sectors. Over a three-year span, the estimated upturn for the Food and Kindred Products Industry was approximately 3 percent. Beverages (SIC 208) and Miscellaneous Food Preparations and Kindred Products (SIC 209) posted moderate gains of 12 and 10 percent over the 1977 survey. Offsetting these gains were drops in Dairy Products (SIC 202) and the cyclical Canning Industry (SIC 203) of 25 and 8 percent, respectively.

Employment in Dairy Products is relatively small and all milk sold by Texas dairies is marketed under the terms of Federal milk marketing orders. The supply and demand factors are also controlled; thus determining the direction of employment.

The total industry employment is expected to follow past trends--a slow moderate growth.

Table 1
SIC 20
Food and Kindred Products

This major group includes establishments manufacturing or processing foods and beverages for human consumption, and certain related products such as manufactured ice, chewing gum, vegetable and animal fats and oils, and prepared feeds for animals and fowls.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	99,030	100.00	na	na
MANAGERS AND OFFICERS	4,980	5.03	5.84	94
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	1,970	1.97	na	na
Accountants and Auditors	310	.31	9.12	40
Biological Science Technicians	60	.06	15.61	4
Chemists	200	.20	13.26	20
Computer Programmers	60	.06	10.00	10
Industrial Engineers	180	.17	25.11	16
Mechanical Engineers	260	.26	15.55	27
Nurses, Professional	60	.05	8.75	10
Personnel and Labor Relations Specialists	160	.15	13.78	25
Purchasing Agents and/or Buyers	300	.30	18.20	36
Systems Analysts, Electronic Data Processing	60	.05	27.19	7
All Other Engineering Technicians	2/			
All Other Natural and Mathematical Scientists	2/			
All Other Science Technicians	80	.08	na	na
All Other Professional and Technical Workers	160	.16	na	na
SERVICE OCCUPATIONS, TOTAL	3,500	3.53	na	na
Supervisors, Nonworking--Service	130	.12	37.17	13
Food Service Workers	320	.32	47.02	5
Janitors, Porters, and Cleaners	2,310	2.33	10.63	56
All Other Service Workers	740	.75	na	na

Table 1 (Continued) Food and Kindred Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	75,950	76.71	na	na
Supervisors, Nonworking.....	2,920	2.94	6.10	52
Baker Helpers.....	1,020	1.03	46.50	6
Baling Machine Operators.....	50	.05	24.31	3
Boners, Meat.....	970	.98	23.69	6
Boners, Poultry.....	680	.68	26.49	3
Butchers, All-Around.....	2,080	2.10	25.51	8
Candy Makers.....	150	.15	31.87	3
Cannery Workers.....	3,850	3.89	14.67	7
Carbonation Equipment Tenders, Beer.....	70	.07	19.54	2
Carcass Splitters.....	320	.31	46.27	6
Carpenters.....	80	.07	32.33	8
Casing Finishers and/or Stuffers	110	.10	30.13	4
Chicken Cutters.....	790	.79	17.76	4
Coin Machine Servicers and/or Vending Machine Repairers.....	320	.32	33.13	5
Cooks and/or Cookers.....	940	.95	19.03	18
Cooler Room Workers, Meat.....	680	.68	28.33	9
Cutting Machine Operators, Food.	440	.44	24.98	11
Dairy-Processing Equipment Operators.....	310	.31	37.49	9
De-Hairing Machine Tenders.....	60	.06	37.64	2
Delivery and Route Workers.....	7,750	7.82	9.91	44
Dividing Machine Operators and/or Dough-Brake Machine Operators.	290	.29	40.32	6
Drier Operators.....	90	.08	22.52	4
Dry Curers.....	180	.17	34.54	2
Electricians.....	310	.31	8.43	21
Equipment Cleaners, Hand	970	.97	12.56	20
Extractor Operators and/or Extractor Plant Operators.....	120	.11	23.63	5
Farm Equipment Operators.....	100	.09	37.53	3
Feed-Pellet Mill Operators.....	260	.25	21.44	10
Fermentation Operators.....	100	.10	17.24	2
Filter and/or Filter Press Operators.....	50	.05	21.43	2
Flavor Room Workers and/or Freezer Operators.....	170	.17	46.37	6
Food Shapers, Hand.....	200	.20	39.41	6
Grain Receivers.....	100	.09	22.15	7
Helpers, Trades.....	530	.53	28.56	15
Industrial Truck Operators.....	2,070	2.09	8.86	43
Ingredient Scalers.....	120	.11	33.88	4

Table 1 (Continued) Food and Kindred Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Inspectors	480	.48	14.97	14
Instrument Repairers	60	.06	12.72	6
Linter Machine Tenders	90	.09	33.84	2
Machinists	390	.39	16.17	17
Maintenance Repairers, General Utility	2,030	2.05	8.57	52
Meat Grinders	180	.17	36.18	6
Mechanics, Automotive	770	.77	7.79	35
Mechanics, Maintenance	1,410	1.42	6.79	35
Millers	330	.33	21.87	13
Millwrights	70	.07	20.82	4
Mixers	1,180	1.19	13.20	34
Novelty Workers	80	.08	45.70	3
Oilers	220	.21	24.69	15
Order Fillers	1,500	1.51	18.78	28
Oven Operators	360	.36	21.50	9
Painters, Maintenance	100	.10	16.25	11
Picklers, Food	100	.10	33.24	4
Plumbers and/or Pipefitters	60	.06	33.29	5
Poultry Dressers and/or Eviscerators	3,290	3.32	30.76	5
Press Operators, Meat	90	.09	33.22	4
Production Packagers, Hand or Machine	10,910	11.02	10.65	54
Pump Operators	100	.10	34.49	2
Pumpers	150	.14	30.67	4
Refinery Operators	130	.12	34.76	3
Refrigeration Mechanics and/or Air Conditioning Mechanics	290	.29	19.85	16
Retort Operators	50	.05	18.82	3
Skinners, Animal	910	.91	38.70	6
Smokers	100	.10	20.89	4
Stationary Boiler Firers	70	.06	19.97	6
Stationary Engineers	70	.06	19.84	5
Stickers	80	.08	28.75	6
Testers	780	.78	7.73	29
Truck Drivers	2,860	2.89	11.53	48
Washers and/or Separators, Food.	580	.58	21.67	9
Weighers, Production	390	.38	32.59	11
Welders and/or Flamecutters	170	.16	17.41	10
All Other Mechanics and Repairers	170	.17	na	na
All Other Skilled Craftsmen and Kindred Workers	1,510	1.52	na	na
All Other Operatives and Semi-skilled Workers	4,120	4.16	na	na
All Other Laborers and Unskilled Workers	10,470	10.58	na	na

Table 1 (Continued) Food and Kindred Products

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
CLERICAL OCCUPATIONS, TOTAL.....	8,500	8.58	na	na
Clerical Supervisors, Office or Plant.....	310	.31	14.48	25
Accounting Clerks.....	680	.68	10.24	48
Bookkeepers, Hand.....	400	.40	21.24	29
Bookkeeping and/or Billing Machine Operators.....	100	.10	21.56	10
Cashiers.....	220	.22	32.23	10
Computer Operators.....	160	.15	14.81	21
File Clerks.....	60	.06	19.55	10
General Clerks, Office.....	1,170	1.18	12.77	50
Keypunch Operators.....	190	.18	9.63	19
Order Clerks.....	280	.28	18.55	28
Payroll and/or Timekeeping Clerks	280	.28	9.68	46
Personnel Clerks.....	150	.15	7.71	28
Procurement Clerks.....	90	.08	14.71	16
Production Clerks and/or Coordinators.....	180	.18	18.80	16
Receptionists.....	70	.07	19.85	11
Secretaries.....	760	.77	9.69	54
Shipping Packers.....	1,060	1.07	18.00	24
Statistical Clerks.....	100	.09	20.92	10
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	470	.47	10.69	31
Switchboard Operator-Receptionists.....	180	.17	11.80	29
Typists.....	150	.14	8.32	18
Weighers, Recordkeeping.....	260	.26	16.09	16
All Other Office Clerical Workers	270	.27	na	na
All Other Plant Clerical Workers	910	.92	na	na
SALES OCCUPATIONS, TOTAL.....	4,130	4.18	na	na
Sales Clerks.....	1,110	1.12	20.26	19
Sales Representatives, Agents, and/or Associates.....	3,020	3.05	12.36	52

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 1 (Continued) Food and Kindred Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	94
Janitors, Porters, and Cleaners	56
Production Packagers, Hand or Machine	54
Secretaries	54
Maintenance Repairers, General Utility	52
Sales Representatives, Agents, and/or Associates	52
Supervisors, Nonworking	52

Table 2
SIC 201
Meat Products

This group includes establishments primarily engaged in the slaughtering, dressing, packing, canning and/or curing of animals (except horses), poultry, and small game. This group also includes those establishments that make lard, sausage, prepared meat products, and other meat specialties; and can, dry, freeze, and break eggs.

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	26,330	100.00	na	na
MANAGERS AND OFFICERS.....	920	3.49	21.14	91
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	470	1.79	na	na
Accountants and Auditors.....	60	.23	17.97	49
Chemists.....	30	.11	38.65	20
Industrial Engineers.....	40	.14	29.43	31
Mechanical Engineers.....	100	.39	25.81	43
Personnel and Labor Relations Specialists.....	50	.18	18.94	54
All Other Professional and Technical Workers.....	190	.71	na	na
SERVICE OCCUPATIONS, TOTAL.....	1,230	4.69	na	na
Janitors, Porters, and Cleaners.	760	2.90	26.25	71
All Other Service Workers.....	470	1.79	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	21,230	80.66	na	na
Supervisors, Nonworking.....	740	2.81	19.02	71
Boners, Meat.....	970	3.69	23.69	43
Boners, Poultry.....	680	2.57	26.49	20
Butchers, All-Around.....	1,960	7.43	26.77	49
Cannery Workers.....	1,120	4.26	45.98	11
Carcass Splitters.....	320	1.19	46.27	46
Casing Finishers.....	110	.40	30.13	29

Table 2 (Continued) Meat Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Chicken Cutters	790	2.99	17.76	29
Cooks and/or Cookers	110	.39	47.98	23
Cooler Room Workers, Meat	660	2.51	29.10	57
Cutting Machine Operators, Food	170	.63	28.78	26
De-Hairing Machine Tenders	60	.24	37.64	17
Delivery and Route Workers	540	2.04	25.31	43
Dry Curers	180	.67	34.54	17
Electricians	40	.16	21.18	37
Equipment Cleaners, Hand	240	.90	29.27	26
Industrial Truck Operators	270	1.01	18.58	49
Inspectors	40	.15	36.86	17
Maintenance Repairers, General Utility	540	2.04	21.30	74
Meat Grinders	170	.64	37.21	37
Mechanics, Automotive	70	.26	23.09	37
Mechanics, Maintenance	100	.37	27.42	29
Mixers	100	.39	31.65	20
Oilers	120	.46	42.51	26
Picklers, Food	70	.25	46.44	17
Poultry Dressers and/or Eviscerators	3,290	12.51	30.76	34
Press Operators, Meat	90	.34	33.22	31
Pumpers	150	.55	30.67	31
Refrigeration Mechanics and/or Air Conditioning Mechanics	80	.30	38.12	37
Skin Peeling Machine Operators	40	.15	20.95	23
Skinners, Animal	750	2.85	44.23	40
Smokers	100	.38	20.89	29
Stickers	80	.31	28.75	40
Testers	120	.47	19.44	29
Washers and/or Separators, Food	280	1.06	29.27	29
Welders and/or Flamecutters	40	.14	34.76	20
All Other Skilled Craftsmen and Kindred Workers	290	1.11	na	na
All Other Operatives and Semi-skilled Workers	3,050	11.60	na	na
All Other Laborers and Unskilled Workers	2,700	10.25	na	na
CLERICAL OCCUPATIONS,TOTAL	2,040	7.71	na	na
Clerical Supervisors, Office or Plant	90	.32	27.21	34
Accounting Clerks	130	.50	40.26	51
Bookkeeping and/or Billing Machine Operators	50	.18	31.71	23

Table 2 (Continued) Meat Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
General Clerks, Office.....	130	.49	36.43	60
Keypunch Operators.....	40	.15	21.13	29
Order Clerks.....	60	.21	26.53	34
Payroll and/or Timekeeping Clerks.....	80	.31	17.15	71
Personnel Clerks.....	70	.24	13.81	60
Production Clerks and/or Coordinators.....	40	.13	29.93	23
Secretaries.....	90	.33	18.58	51
Shipping Packers.....	380	1.44	22.80	40
Statistical Clerks.....	40	.15	42.51	17
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	90	.35	26.16	43
Switchboard Operator-Receptionists.....	60	.22	27.40	46
Weighers, Record-Keeping.....	100	.39	24.84	31
All Other Office Clerical Workers.....	250	.93	na	na
All Other Plant Clerical Workers.....	340	1.30	na	na
SALES OCCUPATIONS, TOTAL.....	440	1.66	na	na
Sales Clerks.....	60	.20	38.38	26
Sales Representatives, Agents, and/or Associates.....	380	1.44	29.64	71

1/ Based on unrounded data.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	91
Maintenance Repairers, General Utility	74
Janitors, Porters, and Cleaners	71
Payroll and/or Timekeeping Clerks	71
Sales Representatives, Agents, and/or Associates	71
Supervisors, Nonworking	71

Table 3
SIC 202
Dairy Products

This group includes establishments primarily engaged in the manufacturing of creamery butter; natural cheese; condensed and evaporated milk; ice cream and frozen desserts; and special dairy products such as processed cheese and malted milk. This industry also includes processing (pasteurizing, homogenizing, vitaminizing, and bottling) fluid milk and cream for wholesale or retail distribution.

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	5,010	100.00	na	na
MANAGERS AND OFFICERS.....	300	5.95	16.91	97
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	100	2.08	na	na
SERVICE OCCUPATIONS, TOTAL.....	70	1.38	na	na
Janitors, Porters, and Cleaners.	50	.91	26.41	55
All Other Service Workers.....	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,790	75.67	na	na
Supervisors, Nonworking.....	130	2.57	28.20	52
Dairy-Processing Equipment Operators.....	250	4.93	45.11	72
Delivery and Route Workers.....	1,200	23.99	23.86	72
Equipment Cleaners, Hand.....	50	1.07	37.93	24
Flavor Room Workers and/or Freezer Operators.....	170	3.45	46.37	48
Maintenance Repairers, General Utility.....	140	2.87	22.00	69
Mechanics, Automotive.....	80	1.55	28.33	48
Novelty Workers.....	80	1.59	45.70	28
Order Fillers.....	150	2.91	23.18	45
Production Packagers, Hand or Machine.....	400	7.92	34.19	59
Testers.....	40	.81	48.52	62
Truck Drivers.....	230	4.49	34.08	59

Table 3 (Continued) Dairy Products

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Mechanics and Repairers	40	.88	na	na
All Other Skilled Craftsmen and Kindred Workers	[2]			
All Other Operatives and Semi-skilled Workers	380	7.51	na	na
All Other Laborers and Unskilled Workers	440	8.81	na	na
CLERICAL OCCUPATIONS, TOTAL	590	11.74	na	na
Accounting Clerks	60	1.13	22.39	55
Bookkeepers, Hand	50	.93	26.66	38
General Clerks, Office	140	2.71	14.82	52
Secretaries	50	.99	40.69	62
Shipping and/or Receiving Clerks.	120	2.43	37.01	45
All Other Office Clerical Workers	120	2.44	na	na
All Other Plant Clerical Workers.	50	1.08	na	na
SALES OCCUPATIONS, TOTAL	160	3.18	na	na
Sales Clerks	30	.67	22.07	17
Sales Representatives, Agents, and/or Associates	130	2.49	29.77	62

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	97
Dairy-Processing Equipment Operators	72
Delivery and Route Workers	72
Maintenance Repairers, General Utility	69
Sales Representatives, Agents, and/or Associates	62
Secretaries	62

Table 4
SIC 203
Canned and Preserved
Fruits and Vegetables

This group includes establishments primarily engaged in canning, dehydrating, pickling, freezing, and/or packing of specialty products; fruits, vegetables, preserves, jams, and jellies; soup mixes; sauces, seasonings, and salad dressings; and frozen specialties.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	8,670	100.00	na	na
MANAGERS AND OFFICERS	280	3.21	10.66	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	200	2.33	na	na
Purchasing Agents and/or Buyers	30	.38	14.94	54
All Other Professional and Technical Workers	170	1.95	na	na
SERVICE OCCUPATIONS, TOTAL	230	2.67	na	na
Guards and Doorkeepers	30	.36	13.79	27
Janitors, Porters, and Cleaners	180	2.05	20.58	65
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	7,350	84.87	na	na
Supervisors, Nonworking	220	2.53	8.27	58
Cannery Workers	2,560	29.55	7.63	42
Carpenters	40	.49	49.64	23
Cooks and/or Cookers	120	1.34	33.01	27
Equipment Cleaners, Hand	170	1.95	9.86	27
Farm Equipment Operators	50	.59	38.39	15
Graders, Food and/or Skins	70	.85	31.25	15
Industrial Truck Operators	160	1.85	13.65	46
Machinists	30	.38	18.60	31
Maintenance Repairers, General Utility	40	.44	28.50	19
Mechanics, Maintenance	300	3.40	8.46	54

Table 4 (Continued) Canned and Preserved Fruits and Vegetables

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Order Fillers	90	.99	16.52	35
Pickers, Food	30	.38	36.30	12
Production Packagers, Hand or Machine	560	6.48	21.14	50
Refrigeration Mechanics and/or Air Conditioning Mechanics	60	.71	18.60	23
Retort Operators	50	.53	20.83	27
Testers	80	.96	10.10	38
Truck Drivers	140	1.65	22.54	42
Welders and/or Flamecutters	50	.56	28.30	31
All Other Skilled Craftsmen and Kindred Workers	460	5.26	na	na
All Other Operatives and Semi-skilled Workers	660	7.62	na	na
All Other Laborers and Unskilled Workers	1,410	16.26	na	na
CLERICAL OCCUPATIONS, TOTAL	450	5.14	na	na
Secretaries	50	.59	14.48	50
Shipping Packers	40	.47	45.23	27
All Other Office Clerical Workers	270	3.07	na	na
All Other Plant Clerical Workers	90	1.00	na	na
SALES OCCUPATIONS, TOTAL	160	1.78	na	na
Sales Representatives, Agents, and/or Associates	110	1.25	44.68	38
All Other Sales Workers	50	.52	na	na

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Janitors, Porters, and Cleaners	65
Supervisors, Nonworking	58
Mechanics, Maintenance	54
Purchasing Agents and/or Buyers	54

Table 5
SIC 204
Grain Mill Products

This group includes establishments primarily engaged in milling flour, wet corn, rice, and other grains; mixing and blending purchased flour; and preparing cereal breakfast foods, animal and poultry feeds, feed ingredients, and pet foods (canned, frozen, and dry).

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	8,070	100.00	na	na
MANAGERS AND OFFICERS.....	680	8.41	8.34	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	240	2.97	na	na
Accountants and Auditors.....	50	.59	11.71	41
Purchasing Agents and/or Buyers.	80	.98	17.42	43
All Other Professional and Technical Workers.....	110	1.39	na	na
SERVICE OCCUPATIONS, TOTAL.....	240	3.04	na	na
Guards and Doorkeepers.....	50	.64	45.14	20
Janitors, Porters, and Cleaners.	180	2.22	27.21	41
All Other Service Workers.....	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	5,650	69.98	na	na
Supervisors, Nonworking.....	240	2.97	11.30	52
Delivery and Route Workers.....	190	2.39	39.40	18
Drier Operators.....	60	.77	30.45	14
Electricians.....	40	.43	15.99	27
Equipment Cleaners, Hand.....	70	.82	33.53	9
Feed-Pellet Mill Operators.....	170	2.12	23.17	43
Grain Receivers.....	70	.85	22.09	34
Helpers, Trades.....	50	.63	34.62	18
Industrial Truck Operators.....	170	2.11	14.08	50
Inspectors.....	60	.68	14.96	16
Machinists.....	30	.38	13.20	16

Table 5 (Continued) Grain Mill Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Maintenance Repairers, General Utility	220	2.74	17.37	61
Mechanics, Automotive	30	.38	19.10	16
Mechanics, Maintenance	90	1.08	20.71	27
Millers	210	2.54	16.33	52
Mixers	230	2.87	14.59	50
Order Fillers	240	2.92	36.52	23
Production Packagers, Hand or Machine	1,210	15.04	11.14	52
Testers	50	.62	17.05	18
Truck Drivers	530	6.53	17.15	68
Weighers, Production	40	.45	29.30	23
All Other Skilled Craftsmen and Kindred Workers	90	1.13	na	na
All Other Operatives and Semi-skilled Workers	560	7.00	na	na
All Other Laborers and Unskilled Workers	1,000	12.40	na	na
CLERICAL OCCUPATIONS, TOTAL	940	11.52	na	na
Accounting Clerks	80	.95	11.05	48
Bookkeepers, Hand	110	1.35	36.94	30
General Clerks, Office	110	1.39	20.09	50
Order Clerks	50	.62	16.82	32
Secretaries	130	1.56	14.15	57
Shipping and/or Receiving Clerks	60	.78	25.72	32
Shipping Packers	80	.95	23.78	18
Stock Clerks-Stockroom, Warehouse, or Storage Yard	60	.73	27.72	25
Weighers, Record-Keeping	40	.44	30.63	23
All Other Clerical Workers	220	2.70	na	na
SALES OCCUPATIONS, TOTAL	320	4.08	na	na
Sales Clerks	50	.67	25.17	23
Sales Representatives, Agents, and/or Associates	270	3.40	13.13	59

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 5 (Continued) Grain Mill Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Truck Drivers	68
Maintenance Repairers, General Utility	61
Sales Representatives, Agents, and/or Associates	59
Secretaries	57

Table 6
SIC 206
Sugar and Confectionery Products

This group includes establishments primarily engaged in manufacturing cane sugar; beet sugar; candy and other confectionery products; chocolate and cocoa products; and chewing gum or chewing gum base. This group also includes establishments that refine cane sugar.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	3,090	100.00	na	na
MANAGERS AND OFFICERS.....	150	4.75	6.39	92
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	170	5.56	na	na
SERVICE OCCUPATIONS.....	50	1.53	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,330	75.51	na	na
Supervisors, Nonworking.....	110	3.67	32.63	46
Candy Makers.....	150	4.91	31.87	54
Cooks and/or Cookers.....	40	1.39	26.89	31
Electricians.....	40	1.17	40.35	23
Maintenance Repairers, General Utility.....	90	2.79	5.50	38
Mechanics, Maintenance.....	130	4.32	12.60	38
Production Packagers, Hand or Machine.....	850	27.49	23.28	69
All Other Mechanics and Repairers	110	3.41	na	na
All Other Skilled Craftsmen and Kindred Workers.....	100	3.35	na	na
All Other Operatives and Semi-skilled Workers.....	390	12.52	na	na
All Other Laborers and Unskilled Workers.....	320	10.47	na	na
CLERICAL OCCUPATIONS, TOTAL.....	320	10.50	na	na
General Clerks, Office.....	50	1.65	40.79	46

Table 6 (Continued) Sugar and Confectionery Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Secretaries	40	1.39	14.66	54
Shipping Packers	40	1.20	25.01	54
Stock Clerks-Stockroom, Warehouse, or Storage Yard	40	1.23	38.23	38
All Other Clerical Workers	150	5.01	na	na
SALES OCCUPATIONS	70	2.15	na	na

1/ Based on unrounded data.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	92
Production Packagers, Hand or Machine	69
Candy Makers	54
Secretaries	54
Shipping Packers	54

Table 7
SIC 208
Beverages

This group includes establishments primarily engaged in manfacturing malt; malt beverages; wines, brandy, and brandy spirits; distilled, rectified, and blended liquors; bottled and canned soft drinks and carbonated waters; and flavoring extracts and syrups.

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	18,880	100.00	na	na
MANAGERS AND OFFICERS	1,110	5.88	9.34	97
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	330	1.74	na	na
Accountants and Auditors	50	.26	19.92	45
Chemists	70	.34	33.17	28
Industrial Engineers	30	.16	14.82	17
Personnel and Labor Relations Specialists	30	.16	16.43	31
All Other Professional and Technical Workers	150	.80	na	na
SERVICE OCCUPATIONS,TOTAL	440	2.33	na	na
Guards and Doorkeepers	40	.21	46.19	21
Janitors, Porters, and Cleaners	200	1.07	24.59	55
All Other Service Workers	200	1.05	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	13,520	71.68	na	na
Supervisors, Nonworking	740	3.92	7.92	66
Carbonation Equipment Tenders, Beer	70	.37	19.54	17
Coin Machine Servicers and/or Vending Machine Repairers	320	1.69	33.13	45
Delivery and Route Workers	2,750	14.57	11.47	69
Electricians	120	.63	14.65	28
Fermentation Operators	100	.55	17.24	17

Table 7 (Continued) Beverages

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Industrial Truck Operators.....	930	4.92	13.91	69
Inspectors.....	220	1.17	30.38	41
Loaders, Malt House.....	40	.22	16.04	14
Machinists.....	230	1.20	26.89	24
Maintenance Repairers, General Utility.....	250	1.32	17.68	55
Mechanics, Automotive.....	290	1.52	11.50	55
Mechanics, Maintenance.....	300	1.59	14.25	45
Painters, Maintenance.....	40	.19	35.27	21
Production Packagers, Hand or Machine.....	2,050	10.87	20.59	59
Testers.....	160	.85	26.57	45
Truck Drivers.....	370	1.96	29.17	55
All Other Mechanics and Repairers	70	.37	na	na
All Other Skilled Craftsmen and Kindred Workers.....	160	.87	na	na
All Other Operatives and Semi-skilled Workers.....	670	3.53	na	na
All Other Laborers and Unskilled Workers.....	3,640	19.29	na	na
CLERICAL OCCUPATIONS, TOTAL.....	1,850	9.73	na	na
Clerical Supervisors, Office or Plant.....	60	.30	36.44	41
Accounting Clerks.....	200	1.03	16.02	62
Cashiers.....	50	.25	19.97	24
Computer Operators.....	50	.25	40.38	31
General Clerks, Office.....	340	1.79	35.86	55
Keypunch Operators.....	100	.51	13.99	59
Order Clerks.....	40	.22	10.82	28
Payroll and/or Timekeeping Clerks.....	50	.25	22.27	52
Production Clerks and/or Coordinators.....	40	.22	15.34	21
Secretaries.....	260	1.38	20.70	66
Shipping and/or Receiving Clerks	120	.64	21.75	48
Stock Clerks-Stockroom, Warehouse or Storage Yard.....	110	.56	20.08	31
Switchboard Operator-Receptionists	40	.22	20.75	38
Typists.....	50	.25	9.57	31
All Other Office Clerical Workers	240	1.27	na	na
All Other Plant Clerical Workers	100	.51	na	na

Table 7 (Continued) Beverages

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SALES OCCUPATIONS, TOTAL.....	1,630	8.64	na	na
Sales Representatives, Agents, and/or Associates.....	1,610	8.51	16.33	76
All Other Sales Workers.....	[2]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	97
Sales Representatives, Agents, and/or Associates	76
Delivery and Route Workers	69
Industrial Truck Operators	69
Secretaries	66
Supervisors, Nonworking	66

Table 8
SIC 209
Miscellaneous Food Preparations and Kindred Products

This group includes establishments primarily engaged in canning and curing fish and seafoods; preparing fresh and raw or cooked frozen packaged fish and other seafood, including soups; roasting coffee and manufacturing coffee concentrates and extracts; manufacturing ice; manufacturing dry macaroni, spaghetti, vermicelli, and noodles; and other food preparations, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	12,600	100.00	na	na
MANAGERS AND OFFICERS.....	640	5.10	9.90	86
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	200	1.59	na	na
Accountants and Auditors.....	40	.28	22.41	21
Purchasing Agents and/or Buyers.	40	.31	29.50	24
All Other Professional and Technical Workers.....	120	.99	na	na
SERVICE OCCUPATIONS,TOTAL.....	600	4.72	na	na
Janitors, Porters, and Cleaners.	370	2.91	12.43	43
All Other Service Workers.....	230	1.81	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	10,040	79.69	na	na
Supervisors, Nonworking.....	300	2.35	7.82	26
Cooks and/or Cookers.....	590	4.68	27.97	43
Delivery and Route Workers.....	810	6.40	19.54	62
Equipment Cleaners, Hand.....	160	1.28	20.46	21
Food Shapers, Hand.....	80	.66	38.86	10
Helpers, Trades.....	80	.64	13.50	12
Industrial Truck Operators.....	260	2.04	7.47	24
Inspectors.....	110	.85	9.09	10
Maintenance Repairers, General Utility.....	270	2.12	9.51	33
Mechanics, Automotive.....	70	.54	24.37	26

Table 8 (Continued) Miscellaneous Food Preparations and Kindred Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Mechanics, Maintenance	200	1.55	13.05	26
Mixers	240	1.87	25.34	31
Order Fillers	270	2.17	7.03	26
Oven Operators	40	.28	39.66	10
Production Packagers, Hand or Machine	3,160	25.15	10.33	60
Refrigeration Mechanics and/or Air Conditioning Mechanics	60	.49	33.78	24
Testers	220	1.71	3.91	19
Truck Drivers	520	4.15	16.60	33
Washers and/or Separators, Food	160	1.24	36.05	19
All Other Mechanics and Repairers	40	.30	na	na
All Other Skilled Craftsmen and Kindred Workers	120	.92	na	na
All Other Operatives and Semi-skilled Workers	1,520	12.08	na	na
All Other Laborers and Unskilled Workers	760	6.05	na	na
CLERICAL OCCUPATIONS, TOTAL	900	7.17	na	na
Clerical Supervisors, Office or Plant	40	.35	37.94	19
Accounting Clerks	60	.45	35.22	21
Bookkeepers, Hand	50	.40	45.32	19
General Clerks, Office	190	1.51	22.01	45
Order Clerks	70	.57	47.71	21
Secretaries	80	.60	16.94	40
Shipping and/or Receiving Clerks	80	.65	29.94	29
Stock Clerks-Stockroom, Warehouse, or Storage Yard	60	.43	21.83	19
Weighers, Record-Keeping	40	.35	46.59	12
All Other Office Clerical Workers	160	1.26	na	na
All Other Plant Clerical Workers	70	.57	na	na
SALES OCCUPATIONS, TOTAL	220	1.73	na	na
Sales Representatives, Agents, and/or Associates	120	.94	31.72	26
All Other Sales Workers	100	.78	na	na

1/ Based on unrounded data.

Table 8 (Continued) Miscellaneous Food Preparations and Kindred Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	86
Delivery and Route Workers	62
Production Packagers, Hand or Machine	60
General Clerks, Office	45
Cooks and/or Cookers	43
Janitors, Porters, and Cleaners	43

SIC 22
TEXTILE MILL PRODUCTS

Employment in the Textile Industry is comparatively small. In April 1980, estimated employment was 5,800--a significant drop of 16 percent from April 1977. Industry development over the last few years has been inhibited by worldwide oversupply and intense competition.

The cotton fabric sector, the largest portion of the industry, represents 65 percent of the Textile Industry. This percentage has remained fairly constant over a three-year period.

Man-made fabric mills, wool mills, and knitting mills are minor segments of the Textile Industry and have employment too small (less than 1,000) to meet the publication criteria. As evidenced by the table, most occupations are machine operative jobs that can be learned at the work site.

Throughout the mid-1980's, employment growth in the Textile Industry is expected to be slower than the average for all industries. Expansion will be correlated to demands from the Apparel and Home Furnishings Industries. Other than moderate expansion in the cotton fabric mills, job openings will result from persons leaving the industry because of death, retirements, or for other reasons than employment growth.

Table 9
SIC 22
Textile Mill Products

This major group includes establishments engaged in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broad woven fabric, narrow woven fabric, knit fabric, and carpets and rugs from yarn; (3) dyeing and finishing fiber, yarn, fabric, and knit apparel; (4) coating, waterproofing, or otherwise treating fabric; (5) the intergrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven fabrics, and miscellaneous textiles.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	5,840	100.00	na	na
MANAGERS AND OFFICERS	180	3.01	28.08	89
PROFESSIONAL AND TECHNICAL OCCUPATIONS	120	2.13	na	na
SERVICE OCCUPATIONS, TOTAL	180	3.15	na	na
Janitors, Porters, and Cleaners	120	2.11	9.98	51
All Other Service Workers	60	1.02	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	4,930	84.50	na	na
Supervisors, Nonworking	240	4.01	3.06	54
Battery Loaders	70	1.14	4.54	14
Beam-Warper Tenders, Automatic and/or Beamers	120	1.96	5.76	16
Burlers	70	1.14	8.93	14
Card Grinders	40	.70	5.92	16
Card Tenders, Comber Tenders, and/or Card Strippers	80	1.29	1.34	24
Cloth Graders	60	1.07	3.34	8
Creelers, Yarn	120	2.10	16.54	30
Doffers	110	1.89	2.85	24
Drawing-Frame Tenders and/or Gill-Box Tenders	90	1.51	4.07	22

Table 9 (Continued) Textile Mill Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Electricians	30	.58	3.37	14
Harness Placers	80	1.34	4.76	11
Industrial Truck Operators	40	.66	11.02	32
Inspectors	120	2.10	17.27	35
Loom Fixers	140	2.39	3.60	22
Maintenance Repairers, General Utility	90	1.58	5.51	30
Oilers	40	.64	1.72	22
Opener Tenders and/or Waste Machine Tenders	50	.76	3.99	11
Section Repairers and Setters	100	1.72	7.57	11
Sewing Machine Operators, Regular Equipment--Nongarment.	90	1.55	37.10	24
Slasher Tenders	90	1.58	.91	19
Smash Hands	50	.78	1.59	22
Spinners, Frame	270	4.59	33.91	27
Spooler Operators, Automatic	50	.78	7.66	8
Warp-Tying Machine Tenders	60	1.04	5.03	16
Weavers	460	7.90	12.93	30
Winder Operators, Automatic	100	1.70	7.60	14
All Other Mechanics and Repairers	100	1.70	na	na
All Other Skilled Craftsmen and Kindred Workers	130	2.22	na	na
All Other Operatives and Semi-skilled Workers	1,140	19.63	na	na
All Other Laborers and Unskilled Workers	700	11.96	na	na
CLERICAL OCCUPATIONS, TOTAL	390	6.61	na	na
General Clerks, Office	40	.63	29.89	35
Secretaries	40	.61	39.86	43
Shipping and/or Receiving Clerks	30	.52	42.73	35
Shipping Packers	80	1.41	19.29	35
All Other Office Clerical Workers	140	2.34	na	na
All Other Plant Clerical Workers	60	1.05	na	na
SALES OCCUAPTIONS	40	.60	na	na

1/ Based on unrounded data.

Table 9 (Continued) Textile Mill Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	89
Supervisors, Nonworking	54
Janitors, Porters, and Cleaners	51
Secretaries	43
General Clerks, Office	35
Inspectors	35
Shipping and/or Receiving Clerks	35
Shipping Packers	35

Table 10
SIC 221
Broad Woven Fabric Mills, Cotton

This group includes establishments primarily engaged in weaving fabrics over twelve inches in width, wholly or chiefly by weight of cotton.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	3,780	100.00	na	na
MANAGERS AND OFFICERS.....	60	1.57	9.24	89
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	80	2.24	na	na
SERVICE OCCUPATIONS, TOTAL.....	150	3.73	na	na
Janitors, Porters, and Cleaners.	100	2.52	3.87	67
All Other Service Workers.....	50	1.20	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,280	86.98	na	na
Supervisors, Nonworking.....	180	4.72	2.06	89
Battery Loaders.....	70	1.77	4.54	56
Beam-Warper Tenders, Automatic and/or Beamers.....	70	1.93	9.07	44
Burlers.....	70	1.75	9.06	44
Card Grinders.....	40	1.06	6.07	56
Card Tenders, Comber Tenders, and/or Card Strippers.....	70	1.83	1.48	67
Creelers, Yarn.....	100	2.57	5.98	56
Doffers.....	80	2.09	4.00	67
Drawing-Frame Tenders and/or Gill-Box Tenders.....	80	2.20	4.36	67
Electricians.....	30	.84	3.59	44
Harness Placers.....	80	2.09	4.76	44
Inspectors.....	90	2.25	4.52	44
Loom Fixers.....	140	3.63	3.65	67
Maintenance Repairers, General Utility.....	70	1.75	6.85	44
Oilers.....	30	.84	2.04	67

Table 10 (Continued) Broad Woven Fabric Mills, Cotton

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Opener Tenders and/or Waste Machine Tenders	40	1.14	4.17	33
Section Repairers and Setters	100	2.57	7.88	33
Slasher Tenders	90	2.38	.94	67
Smash Hands	40	1.11	1.74	67
Spinners, Frame	220	5.81	1.79	67
Spooler Operators, Automatic	50	1.22	7.66	33
Warp-Tying Machine Tenders	50	1.40	5.79	56
Weavers	380	10.03	3.20	67
Winder Operators, Automatic	90	2.38	8.44	33
ALL Other Mechanics and Repairers	40	1.17	na	na
All Other Skilled Craftsmen and Kindred Workers	120	3.14	na	na
All Other Operatives and Semi-skilled Workers	520	13.93	na	na
All Other Laborers and Unskilled Workers	340	9.05	na	na
CLERICAL OCCUPATIONS, TOTAL	210	5.48	na	na
Shipping Packers	40	.98	10.00	33
Stock Clerks-Stockroom, Warehouse, or Storage Yard	30	.90	6.74	44
All Other Clerical Workers	140	3.60	na	na

1/ Based on unrounded data.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	89
Supervisors, Nonworking	89
Card Tenders, Comber Tenders, and/or Card Strippers	67
Doffers	67
Drawing-Frame Tenders and/or Gill-Box Tenders	67
Janitors, Porters, and Cleaners	67
Loom Fixers	67
Oilers	67
Slasher Tenders	67
Smash Hands	67
Spinners, Frame	67
Weavers	67

SIC 23
APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS

The Apparel Industry is one of Texas' largest employers with an estimated total employment of 78,500 as of May 1980. Approximately 25 percent of the employment is concentrated in the high-fashion Dallas-Fort Worth area.

This industry requires a large number of production workers in proportion to the value of its product output because much of the work is done manually at sewing machines and cutting tables. Since the Apparel Industry is very competitive, adequate labor supply is essential. Therefore, the bulk of manufacturing plants take advantage of the labor supply available along the Mexican border.

The Apparel Industry is dictated by the fashion-oriented segments of Women's, Misses', and Juniors' Outerwear (SIC 233) and the all-inclusive Miscellaneous Fabricated Textile Products (SIC 239). Their combined total accounts for 32 percent of the industry's total employment.

A slow steady growth has been evident in all industry segments during the last three years. The average growth has been 2 to 3 percent and indications are that this pace will probably continue through the mid-1980's.

Table 11
SIC 23
Apparel and Other Finished Products
Made From Fabrics
and Similar Materials

This major group, known as the cutting-up and needle trades, includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related materials such as leather, rubberized fabrics, plastics, and furs.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	78,590	100.00	na	na
MANAGERS AND OFFICERS	2,330	2.96	9.91	89
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	920	1.17	na	na
Accountants and Auditors	90	.11	23.38	14
Computer Programmers	50	.06	18.64	9
Designers	190	.23	15.20	21
Industrial Engineers	180	.23	13.89	18
Personnel and Labor Relations Specialists	60	.07	14.20	12
Purchasing Agents and/or Buyers	120	.14	15.47	20
Systems Analysts, Electronic	40	.05	30.97	5
All Other Professional Workers	90	.11	na	na
All Other Technical Workers	100	.13	na	na
SERVICE OCCUPATIONS, TOTAL	920	1.16	na	na
Supervisors, Nonworking--Service	50	.05	22.21	6
Janitors, Porters, and Cleaners	770	.98	5.61	59
All Other Service Workers	100	.12	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	66,400	84.53	na	na
Supervisors, Nonworking	1,860	2.36	5.44	56
Belt Makers, Apparel	100	.12	24.56	5
Bundlers	1,540	1.96	19.12	39
Cutters, Hand	450	.57	12.32	30
Cutters, Machine	310	.39	23.01	17
Cutters, Portable Machine	580	.73	10.17	31

Table 11 (Continued) Apparel and Other Finished Products Made From Fabrics and Similar Materials

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Delivery and Route Workers....	60	.08	24.70	6
Die Cutters and/or Clicking Machine Operators.....	150	.19	15.09	12
Folders, Hand.....	750	.95	27.09	16
Fusing Machine Operators.....	380	.48	14.39	19
Garment Repairers.....	480	.60	16.16	16
Gluers and/or Cementers, Hand.	60	.07	24.21	3
Hand Sewers.....	280	.36	22.48	11
Industrial Truck Operators....	100	.12	25.55	9
Inspectors.....	1,930	2.45	9.14	47
Instructors, Apparel and Textile Machines.....	680	.86	17.75	14
Maintenance Repairers, General Utility.....	200	.25	28.09	15
Markers.....	360	.45	10.31	25
Mechanics, Maintenance.....	100	.12	29.62	9
Mechanics, Sewing Machine.....	840	1.06	8.02	41
Order Fillers.....	210	.26	11.56	17
Pattern Cutters.....	90	.11	30.62	13
Patternmakers.....	270	.34	18.03	22
Pressers, Hand.....	830	1.05	10.02	31
Pressers, Machine.....	1,800	2.28	18.06	26
Production Packagers, Hand or Machine.....	530	.67	11.32	23
Sample Makers.....	330	.42	21.99	17
Sewing Machine Operators, Regular Equipment--Garment..	32,740	41.67	5.40	68
Sewing Machine Operators, Regular Equipment--Nongarment.....	3,030	3.85	30.23	19
Sewing Machine Operators, Special and/or Automatic Equipment--Garment.....	7,210	9.17	17.37	43
Sewing Machine Operators, Special and/or Automatic Equipment--Nongarment.....	1,140	1.44	12.01	9
Shapers and Pressers.....	70	.09	40.42	6
Shuttlers, Embroidery.....	40	.05	34.77	3
Slitting-Machine Operators....	60	.07	16.12	7
Soabar Operators.....	220	.28	18.90	19
Spot Cleaners.....	100	.13	24.22	7
Spreaders.....	830	1.05	9.29	37
Thread Trimmers.....	650	.82	20.14	25
Truck Drivers.....	200	.25	16.78	20
Turners.....	300	.38	21.52	20
Work Distributors.....	610	.77	11.29	28
All Other Mechanics and Repairers.....	40	.05	na	na

Table 11 (Continued) Apparel and Other Finished Products Made From Fabrics and Similar Materials

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Skilled Craftsmen and Kindred Workers.....	210	.27	na	na
All Other Operatives and Semi-skilled Workers.....	2,550	3.24	na	na
All Other Laborers and Unskilled Workers.....	1,130	1.44	na	na
CLERICAL OCCUPATIONS, TOTAL.....	6,830	8.66	na	na
Clerical Supervisors, Office or Plant.....	190	.24	14.08	20
Accounting Clerks.....	280	.35	12.27	31
Bookkeepers, Hand.....	160	.19	16.29	24
Bookkeeping and/or Billing Machine Operators.....	40	.05	22.73	6
Computer Operators.....	110	.13	10.81	15
File Clerks.....	60	.08	36.64	9
General Clerks, Office.....	640	.81	15.04	36
Keypunch Operators.....	160	.20	17.03	12
Order Clerks.....	200	.24	13.05	17
Payroll and/or Timekeeping Clerks.....	400	.50	6.91	42
Personnel Clerks.....	110	.14	8.95	18
Procurement Clerks.....	60	.07	27.59	8
Production Clerks and/or Coordinators.....	190	.24	11.33	20
Receptionists.....	50	.05	34.94	10
Secretaries.....	330	.41	32.07	36
Shade-Ticket Markers.....	450	.57	14.31	19
Shipping and/or Receiving Clerks.....	510	.65	14.74	44
Shipping Packers.....	1,010	1.27	18.72	49
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	490	.62	13.48	31
Switchboard Operator-Receptionists.....	100	.12	19.05	21
Typists.....	60	.07	17.49	9
All Other Office Clerical Workers.....	1,130	1.44	na	na
All Other Plant Clerical Workers	100	.13	na	na
SALES OCCUPATIONS, TOTAL.....	1,190	1.52	na	na
Sales Clerks.....	350	.44	24.54	13
Sales Representatives, Agents, and/or Associates.....	840	1.06	21.82	34

1/ Based on unrounded data.

Table 11 (Continued) Apparel and Other Finished Products Made From Fabrics and Similar Materials

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	89
Sewing Machine Operators, Regular Equipment--Garment	68
Janitors, Porters, and Cleaners	59
Supervisors, Nonworking	56
Shipping Packers	49

Table 12
SIC 231
Men's, Youths', and Boys'
Suits, Coats, and Overcoats

This group includes establishments primarily engaged in manufacturing men's, youths', and boys' tailored suits, coats, and overcoats, and uniforms (except athletic uniforms).

Occupation	Estimated Empl.	% of Total Empl.	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	2,210	100.00	na	na
MANAGERS AND OFFICERS	40	1.63	37.14	83
PROFESSIONAL AND TECHNICAL OCCUPATIONS	2/			
SERVICE OCCUPATIONS, TOTAL	50	2.04	na	na
Janitors, Porters, and Cleaners	40	1.58	9.96	100
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	1,950	88.04	na	na
Supervisors, Nonworking	70	2.98	17.42	67
Bundlers	40	1.85	31.04	50
Inspectors	80	3.39	15.89	67
Pressers, Machine	120	5.60	9.10	83
Sewing Machine Operators, Regular Equipment--Garment	1,180	53.36	4.06	100
Sewing Machine Operators, Special and/or Automatic Equipment--Garment	60	2.48	22.62	67
Spreaders	40	1.80	15.35	67
All Other Skilled Craftsmen and Kindred Workers	30	1.54	na	na
All Other Operatives and Semi-skilled Workers	230	10.28	na	na
All Other Laborers and Unskilled Workers	100	4.62	na	na

Table 12 (Continued) Men's, Youths', and Boys' Suits, Coats, and Overcoats

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
CLERICAL OCCUPATIONS.....	150	6.74	na	na
SALES OCCUPATIONS.....	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Janitors, Porters, and Cleaners	100
Sewing Machine Operators, Regular Equipment--Garment	100
Managers and Officers	83
Pressers, Machine	83
Inspectors	67
Sewing Machine Operators, Special and/or Automatic Equipment--Garment	67
Spreaders	67
Supervisors, Nonworking	67

Table 13
SIC 233
Women's, Misses', and Juniors' Outerwear

This group includes establishments primarily engaged in manufacturing women's, misses', and juniors' blouses, waists, and shirts; dresses; suits, skirts, and coats; and outerwear, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	18,490	100.00	na	na
MANAGERS AND OFFICERS.....	620	3.35	11.49	93
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	250	1.38	na	na
Designers.....	100	.56	22.85	31
Industrial Engineers.....	30	.16	31.64	15
Purchasing Agents and/or Buyers.	60	.33	26.96	24
All Other Professional and Technical Workers.....	60	.31	na	na
SERVICE OCCUPATIONS,TOTAL.....	280	1.51	na	na
Janitors, Porters, and Cleaners.	250	1.33	10.99	69
All Other Service Workers.....	30	.17	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	15,740	85.08	na	na
Supervisors, Nonworking.....	450	2.42	12.35	57
Bundlers.....	290	1.56	11.14	58
Cutters, Hand.....	80	.40	31.04	16
Cutters, Machine.....	130	.69	33.23	10
Cutters, Portable Machine.....	150	.79	24.77	27
Fusing Machine Operators.....	160	.88	13.66	40
Garment Repairers.....	80	.41	37.11	15
Hand Sewers.....	180	.97	27.08	21
Inspectors.....	420	2.29	10.96	58
Instructors, Apparel and Textile Machines.....	90	.47	26.31	9
Markers.....	120	.63	19.95	37

Table 13 (Continued) Women's, Misses', and Juniors' Outerwear

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Mechanics, Sewing Machine.....	130	.67	13.42	40
Order Fillers.....	50	.27	20.70	16
Pattern Cutters.....	40	.21	18.03	21
Patternmakers.....	130	.70	30.17	34
Pressers, Hand.....	590	3.21	11.45	61
Pressers, Machine.....	290	1.56	21.34	33
Production Packagers, Hand or Machine.....	90	.47	26.66	15
Sample Makers.....	230	1.22	31.13	30
Sewing Machine Operators, Regular Equipment--Garment.....	8,200	44.44	7.60	82
Sewing Machine Operators, Regular Equipment--Nongarment.....	720	3.88	35.05	9
Sewing Machine Operators, Special and/or Automatic Equipment--Garment.....	2,060	11.16	31.72	57
Soabar Operators.....	50	.26	21.76	21
Spreaders.....	200	1.07	14.88	40
Thread Trimmers.....	190	1.00	20.52	43
Truck Drivers.....	40	.23	26.63	22
Turners.....	90	.46	20.33	30
Work Distributors.....	160	.87	18.75	40
All Other Skilled Craftsmen and Kindred Workers.....	2/			
All Other Operatives and Semi-skilled Workers.....	240	1.29	na	na
All Other Laborers and Unskilled Workers.....	80	.43	na	na
CLERICAL OCCUPATIONS, TOTAL.....	1,350	7.29	na	na
Clerical Supervisors, Office or Plant.....	80	.42	25.21	24
Accounting Clerks.....	80	.43	25.80	27
Bookkeepers, Hand.....	50	.24	30.56	19
General Clerks, Office.....	140	.75	22.48	37
Order Clerks.....	50	.26	25.51	16
Payroll and/or Timekeeping Clerks	80	.41	17.39	37
Production Clerks and/or Coordinators.....	40	.20	39.92	19
Secretaries.....	50	.28	23.83	27
Shade-Ticket Markers.....	70	.36	24.82	21
Shipping and/or Receiving Clerks.	160	.85	16.81	45
Shipping Packers.....	180	.99	17.00	40
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	150	.81	28.24	30
All Other Clerical Workers.....	220	1.21	na	na

Table 13 (Continued) Women's, Misses', and Juniors' Outerwear

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SALES OCCUPATIONS, TOTAL.....	250	1.39	na	na
Sales Clerks.....	80	.45	36.81	13
Sales Representatives, Agents, and/or Associates.....	170	.93	22.23	28

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	93
Sewing Machine Operators, Regular Equipment--Garment	82
Janitors, Porters, and Cleaners	69
Pressers, Hand	61
Bundlers	58
Inspectors	58

Table 14
SIC 234
Women's, Misses', Children's, and Infants' Undergarments

This group includes establishments primarily engaged in manufacturing women's, misses', children's, and infants' underwear, nightwear, brassieres, girdles, and allied garments. Manufactured garments are cut and sewed from purchased woven or knit fabric.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	4,050	100.00	na	na
MANAGERS AND OFFICERS.....	110	2.66	2.65	12.32
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	80	1.92	na	na
SERVICE OCCUPATIONS, TOTAL.....	60	1.60	na	na
Janitors, Porters, and Cleaners.	40	1.05	6.02	71
All Other Service Workers.....	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL....	3,190	78.73	na	na
Supervisors, Nonworking.....	80	1.91	0.00	52
Bundlers.....	40	.86	18.02	38
Cutters, Portable Machine.....	60	1.50	17.99	48
Folders, Hand.....	70	1.79	0.00	24
Inspectors.....	110	2.75	7.82	71
Instructors, Apparel and Textile Machines.....	40	.88	3.08	33
Mechanics, Sewing Machine.....	40	1.08	7.36	62
Order Fillers.....	40	1.08	0.00	29
Production Packagers, Hand or Machine.....	80	1.99	0.00	43
Sample Makers.....	30	.76	0.00	29
Sewing Machine Operators, Regular Equipment--Garment....	2,030	49.90	3.48	76
Sewing Machine Operators, Special and/or Automatic Equipment--Garment.....	150	3.66	7.31	43
Spreaders.....	70	1.82	22.77	48

Table 14 (Continued) Women's, Misses', Children's, and Infants' Undergarments

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Skilled Craftsmen and Kindred Workers.....	30	.81	na	na
All Other Operatives and Semi-skilled Workers.....	210	5.17	na	na
All Other Laborers and Unskilled Workers.....	110	2.61	na	na
CLERICAL OCCUPATIONS, TOTAL.....	430	10.70	na	na
Clerical Supervisors, Office or Plant.....	50	1.13	13.12	48
General Clerks, Office.....	50	1.25	37.07	43
Production Clerks and/or Coordinators.....	30	.81	3.82	38
Shipping Packers.....	50	1.30	6.48	48
All Other Office Clerical Workers	160	4.04	na	na
All Other Plant Clerical Workers.	90	2.14	na	na
SALES OCCUPATIONS, TOTAL.....	180	4.39	na	na
Sales Clerks.....	70	1.62	1.91	33
Sales Representatives, Agents, and/or Associates.....	110	2.75	22.93	48

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	95
Sewing Machine Operators, Regular Equipment--Garment	76
Inspectors	71
Janitors, Porters, and Cleaners	71
Mechanics, Sewing Machine	62

Table 15
SIC 238
Miscellaneous Apparel and Accessories

This group includes establishments primarily engaged in manufacturing dress and work gloves, except knit and all-leather; men's and women's robes and dressing gowns; raincoats and other waterproof outer garments; leather and sheep lined clothing; apparel belts; and apparel and accessories, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	1,970	100.00	na	na
MANAGERS AND OFFICERS	80	3.81	15.83	84
PROFESSIONAL AND TECHNICAL OCCUPATIONS	2/			
SERVICE OCCUPATIONS	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	1,510	77.04	na	na
Supervisors, Nonworking	40	2.16	20.25	58
Belt Makers, Apparel	60	3.07	23.60	26
Cutters, Hand	50	2.67	29.37	53
Cutters, Machine	30	1.51	18.19	26
Die Cutters and/or Clicking Machine Operators	50	2.36	16.39	37
Gluers and/or Cementers, Hand	50	2.52	27.56	26
Inspectors	60	2.97	13.12	32
Sewing Machine Operators, Regular Equipment--Garment	520	26.36	14.66	68
Sewing Machine Operators, Regular Equipment--Nongarment	140	7.15	25.90	37
All Other Skilled Craftsmen and Kindred Workers	50	2.29	na	na
All Other Operatives and Semi-skilled Workers	350	17.83	na	na
All Other Laborers and Unskilled Workers	110	5.74	na	na

Table 15 (Continued) Miscellaneous Apparel and Accessories

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
CLERICAL OCCUPATIONS, TOTAL.....	210	10.62	na	na
Secretaries.....	30	1.51	44.54	37
Shipping Packers.....	40	1.81	16.89	68
All Other Office Clerical Workers	110	5.54	na	na
All Other Plant Clerical Workers.	30	1.73	na	na
SALES OCCUPATIONS, TOTAL.....	120	5.99	na	na
Sales Representatives, Agents, and/or Associates.....	110	5.64	33.72	68
All Other Sales Workers.....	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	84
Sales Representatives, Agents, and/or Associates	68
Sewing Machine Operators, Regular Equipment--Garment	68
Shipping Packers	68
Supervisors, Nonworking	68

Table 16
SIC 239
Miscellaneous Fabricated Textile Products

This group includes establishments primarily engaged in manufacturing curtains, draperies, and housefurnishings such as blankets, bedspreads, sheets, tablecloths, and towels from purchased materials. Also included are the manufacture of textile bags; canvas and related products; pleating, decorative and novelty stitching, and tucking for the trade; automotive trimmings, apparel findings, and related products; schiffli machine embroideries; and fabricated textile products, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	7,080	100.00	na	na
MANAGERS AND OFFICERS.....	410	5.77	13.67	84
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	80	1.12	na	na
SERVICE OCCUPATIONS, TOTAL.....	90	1.26	na	na
Janitors, Porters, and Cleaners	80	1.12	23.91	33
All Other Service Workers.....	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	5,780	81.87	na	na
Supervisors, Nonworking.....	140	2.04	15.00	46
Bundlers.....	40	.53	47.01	12
Cutters, Hand.....	160	2.28	21.40	35
Cutters, Machine.....	50	.76	19.11	23
Delivery and Route Workers.....	40	.55	37.00	9
Folders, Hand.....	440	6.19	45.21	23
Garment Repairers.....	50	.65	29.76	7
Inspectors.....	160	2.24	22.19	26
Mechanics, Sewing Machine.....	60	.89	13.57	28
Pressers, Hand.....	40	.59	33.33	18
Pressers, Machine.....	60	.77	46.88	7
Production Packagers, Hand or Machine.....	120	1.70	23.05	28
Sewing Machine Operators, Regular Equipment--Garment...	740	10.45	25.68	32

Table 16 (Continued) Miscellaneous Fabricated Textile Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Sewing Machine Operators, Regular Equipment--Nongarment.	780	11.11	17.58	44
Sewing Machine Operators, Special and/or Automatic Equipment--Garment.....	440	6.22	28.68	25
Sewing Machine Operators, Special and/or Automatic Equipment--Nongarment.....	1,120	15.83	12.22	33
Thread Trimmers.....	30	.48	37.55	9
Turners.....	60	.77	36.05	12
Work Distributors.....	60	.80	18.02	19
All Other Skilled Craftsmen and Kindred Workers.....	150	2.14	na	na
All Other Operatives and Semi-skilled Workers.....	520	7.41	na	na
All Other Laborers and Unskilled Workers.....	470	6.62	na	na
CLERICAL OCCUPATIONS, TOTAL.....	630	8.72	na	na
Accounting Clerks.....	50	.66	28.32	26
Bookkeepers, Hand.....	70	.96	25.46	35
General Clerks, Office.....	70	.93	19.31	25
Payroll and/or Timekeeping Clerks.....	40	.62	18.98	28
Secretaries.....	80	1.10	23.24	40
Shipping and/or Receiving Clerks	60	.79	21.96	39
Shipping Packers.....	110	1.57	17.13	40
All Other Office Clerical Workers.....	110	1.53	na	na
All Other Plant Clerical Workers	40	.51	na	na
SALES OCCUPATIONS, TOTAL.....	90	1.26	na	na
Sales Representatives, Agents, and/or Associates.....	80	1.09	19.68	35
All Other Sales Workers.....	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 16 (Continued) Miscellaneous Fabricated Textile Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	84
Supervisors, Nonworking	46
Sewing Machine Operators, Regular Equipment--Nongarment	44
Secretaries	40
Shipping Packers	40

SIC 24
LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE

The manufacturing of Lumber and Wood Products is concentrated in the timber region of East Texas while millwork for the building industry is conducted throughout the State. Since the industry is affected by many forces that can influence employment demands, estimates on past employment trends are difficult to establish. In May 1980, the Lumber and Wood Products Industry reported an estimated 35,500 workers.

The combined construction-oriented segments of Sawmills and Planing Mills (SIC 242) and Millwork, Veneer, Plywood, and Structural Wood Members (SIC 243) comprise 59 percent of the total employment. As a whole, these segments have shown a decline over the past year.

The Wood Buildings and Mobile Homes (SIC 245) segment contributed 21 percent to the total employment. With the price of homes on the increase, employment continues to rise.

The Lumber and Wood Products Industry reflects the climate of the economy (particularly in the construction industry); therefore, the industry trend for the early 1980's is uncertain.

Table 17
SIC 24
Lumber and Wood Products, Except Furniture

This major group includes logging camps engaged in cutting timber and pulpwood; merchant sawmills, lath mills, shingle mills, cooperage stock mills, planing mills, plywood mills, and veneer mills engaged in producing lumber and wood basic materials; and establishments engaged in manufacturing finished articles made entirely or mainly of wood or wood substitutes.

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	35,460	100.00	na	na
MANAGERS AND OFFICERS	2,010	5.68	6.02	70
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	780	2.16	na	na
Accountants and Auditors	150	.43	10.81	19
Drafters	160	.45	26.15	10
Personnel and Labor Relations Specialists	40	.09	13.49	6
Purchasing Agents and/or Buyers	120	.32	7.50	18
Timber Cruisers	130	.36	12.05	7
All Other Professional Workers	110	.31	na	na
All Other Technical Workers	70	.18	na	na
SERVICE OCCUPATIONS, TOTAL	520	1.46	na	na
Guards and Doorkeepers	200	.56	11.27	16
Janitors, Porters, and Cleaners	300	.83	10.89	24
All Other Service Workers	[2]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	29,270	82.55	na	na
Supervisors, Nonworking	1,190	3.35	7.12	40
Assemblers	4,370	12.31	8.20	24
Automatic Clippers, Veneer	70	.20	16.55	2
Band-Scroll Saw Operators	40	.12	36.58	4
Boring Machine Operators, Wood	50	.13	17.02	5
Cabinetmakers	1,950	5.49	14.91	14
Carpenters	960	2.69	18.81	9

Table 17 (Continued) Lumber and Wood Products, Except Furniture

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Carrier Drivers	70	.20	19.50	5
Chain Offbearers, Lumber	500	1.41	13.77	11
Chippers	130	.36	15.17	10
Conveyor Operators or Tenders	50	.12	21.92	2
Core Feeders	160	.44	19.98	2
Core Layers and/or Sheet Turners	70	.18	18.73	2
Crane, Derrick, and Hoist Operators	70	.18	13.13	4
Cut-Off Saw Operators, Lumber	600	1.69	8.67	28
Cut-Off Sawyers, Log	70	.19	16.07	7
Dado Operators	50	.14	23.21	5
Delivery and Route Workers	260	.72	9.27	12
Edge Gluers	60	.17	20.17	3
Edgers, Automatic and/or Pony	230	.65	22.43	10
Electricians	290	.81	22.42	10
Fallers and/or Buckers	390	1.10	11.12	23
Gluers and/or Cementers, Hand	170	.46	17.49	4
Gluing Machine Operators	110	.30	22.19	5
Head Sawyers	170	.47	23.54	12
Heavy Equipment Operators	50	.14	19.69	5
Helpers, Trades	560	1.57	15.81	12
Hot-Plate-Plywood-Press Operators	70	.19	18.96	2
Industrial Truck Operators	790	2.21	7.93	32
Inspectors	140	.38	17.85	8
Kiln Operators	40	.11	21.56	4
Kiln Stacker Operators	50	.13	14.83	4
Loader Engineers	60	.15	15.42	8
Loaders, Car and Truck	270	.75	15.59	13
Log Handling Equipment Operators	340	.97	12.43	17
Log Inspectors, Graders, and/or Scalers	130	.36	23.30	10
Logging Tractor Operators	450	1.25	13.06	27
Lumber Graders	110	.31	10.80	10
Lumber Straighteners	170	.48	24.05	6
Machine Setters, Woodworking	130	.35	14.25	8
Machinists	40	.10	10.49	4
Maintenance Repairers, General Utility	360	1.01	10.93	25
Mechanics, Automotive	100	.29	9.87	12
Mechanics, Maintenance	120	.33	15.89	12
Millwrights	130	.35	17.13	5
Mortising Machine Operators	40	.10	19.88	2
Nailing Machine Operators	420	1.19	17.67	12
Off-Bearers	610	1.71	14.56	8
Order Fillers	50	.14	11.82	5
Painters, Maintenance	40	.10	25.29	3

Table 17 (Continued) Lumber and Wood Products, Except Furniture

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Painters, Production	260	.73	15.30	10
Planer Operators	110	.31	9.91	12
Plumbers and/or Pipefitters	110	.31	32.43	5
Power Barker Operators	140	.40	20.54	11
Power Screwdriver Operators	150	.42	15.89	5
Production Packagers, Hand or Machine	110	.31	15.95	6
Resawyers	90	.25	14.55	9
Ripsaw Operators	300	.84	15.67	18
Rubbers	60	.16	36.01	2
Sanders, Wood	390	1.10	15.31	13
Saw Filers	180	.51	15.89	16
Shapers and/or Router Operators	160	.45	23.88	6
Stationary Boiler Firers	40	.11	16.65	3
Tenoner Operators	120	.32	13.99	6
Testers	30	.09	12.60	3
Transfer Controllers, Sawmill	60	.17	16.64	2
Treating Engineers	60	.17	18.33	4
Trim Saw Operators	300	.84	13.42	17
Truck Drivers	1,100	3.09	6.66	54
Variety Saw Operators	190	.53	18.08	9
Veneer Drier Feeders	140	.38	15.34	3
Veneer Driers	90	.24	18.34	2
Veneer Graders	120	.33	17.24	3
Veneer-Lathe Operators	50	.13	14.39	2
Welders and/or Flamecutters	280	.78	31.03	7
Wood Machinists	790	2.23	23.60	11
Woodworking Machine Operators	630	1.76	12.42	15
All Other Mechanics and Repairers	30	.08	na	na
All Other Skilled Craftsmen and Kindred Workers	310	.87	na	na
All Other Operatives and Semi-skilled Workers	1,400	3.95	na	na
All Other Laborers and Unskilled Workers	4,120	11.62	na	na
CLERICAL OCCUPATIONS,TOTAL	2,330	6.59	na	na
Clerical Supervisors, Office or Plant	60	.16	16.11	7
Accounting Clerks	140	.38	13.01	16
Bookkeepers, Hand	240	.66	19.93	22
General Clerks, Office	470	1.31	11.23	29
Payroll and/or Timekeeping Clerks	60	.17	10.42	12
Personnel Clerks	30	.09	11.68	7
Production Clerks and/or Coordinators	70	.20	11.96	10

Table 17 (Continued) Lumber and Wood Products, Except Furniture

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Receptionists	40	.12	24.84	7
Secretaries	320	.90	13.21	33
Shipping and/or Receiving Clerks.	140	.38	15.17	14
Shipping Packers	350	.98	22.11	16
Stock Clerks-Stockroom, Warehouse, or Storage Yard	120	.33	14.41	10
Switchboard Operator-Receptionists	50	.14	8.25	11
Typists	30	.09	32.61	4
All Other Office Clerical Workers	150	.43	na	na
All Other Plant Clerical Workers.	60	.18	na	na
SALES OCCUPATIONS, TOTAL	550	1.56	na	na
Sales Clerks	40	.11	14.39	4
Sales Representatives, Agents, and/or Associates	510	1.44	10.96	27

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	70
Truck Drivers	54
Supervisors, Nonworking	40
Secretaries	33
Industrial Truck Operators	32

Table 18
SIC 242
Sawmills and Planing Mills

This group includes general sawmills and planing mills; hardwood dimension and flooring mills; and special product sawmills, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	6,380	100.00	na	na
MANAGERS AND OFFICERS	350	5.52	14.45	86
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	120	1.80	na	na
Accountants and Auditors	40	.56	15.98	29
All Other Professional and Technical Workers	80	1.23	na	na
SERVICE OCCUPATIONS, TOTAL	130	2.02	na	na
Guards and Doorkeepers	80	1.18	24.67	40
Janitors, Porters, and Cleaners	50	.78	45.73	34
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	5,370	84.26	na	na
Supervisors, Nonworking	250	3.85	21.23	46
Carrier Drivers	30	.47	17.28	17
Chain Offbearers, Lumber	350	5.43	17.15	60
Chippers	80	1.30	21.84	63
Conveyor Operators or Tenders	40	.56	26.67	14
Core Layers and/or Sheet Turners	40	.69	20.64	9
Cut-Off Saw Operators, Lumber	60	.92	17.29	43
Cut-Off Sawyers, Log	30	.50	15.11	29
Delivery and Route Workers	30	.50	8.02	9
Edgers, Automatic and/or Pony	220	3.40	24.19	71
Electricians	50	.70	11.99	26
Head Sawyers	140	2.18	28.32	80
Helpers, Trades	50	.83	40.08	26
Industrial Truck Operators	200	3.16	23.95	66

Table 18 (Continued) Sawmills and Planing Mills

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Inspectors	60	.91	36.00	14
Loaders, Car and Truck	60	.91	20.97	23
Log Handling Equipment Operators	80	1.32	19.17	63
Log Inspectors, Graders, and/or Scalers	80	1.22	36.37	51
Lumber Graders	70	1.02	12.99	49
Lumber Straighteners	140	2.17	29.57	31
Maintenance Repairers, General Utility	110	1.73	20.34	49
Mechanics, Automotive	40	.61	16.24	31
Mechanics, Maintenance	30	.53	44.70	29
Millwrights	90	1.35	15.89	26
Off-Bearers	160	2.56	33.57	17
Planer Operators	60	.89	14.21	54
Power Barker Operators	100	1.55	28.09	69
Saw Filers	130	2.03	21.32	86
Transfer Controllers, Sawmill	30	.48	17.42	14
Trim Saw Operators	100	1.57	17.24	71
Truck Drivers	230	3.63	19.34	66
Veneer Drier Feeders	50	.74	19.60	9
Veneer Driers	50	.72	28.06	9
Veneer Graders	50	.83	27.06	9
Woodworking Machine Operators	90	1.33	35.32	11
All Other Skilled Craftsmen and Kindred Workers	280	4.37	na	na
All Other Operatives and Semi-skilled Workers	650	10.31	na	na
All Other Laborers and Unskilled Workers	1,060	16.66	na	na
CLERICAL OCCUPATIONS, TOTAL	350	5.50	na	na
Accounting Clerks	30	.51	27.92	29
Bookkeepers, Hand	40	.55	42.28	34
General Clerks, Office	60	.96	24.38	49
Secretaries	80	1.18	37.78	40
All Other Clerical Workers	140	2.27	na	na
SALES OCCUPATIONS, TOTAL	60	.90	na	na
Sales Representatives, Agents, and/or Associates	40	.66	28.32	17
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 18 (Continued) Sawmills and Planing Mills

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	86
Saw Filers	86
Head Sawyers	80
Edgers, Automatic and/or Pony	71
Trim Saw Operators	71

Table 19
SIC 243
Millwork, Veneer, Plywood, and Structural Wood Members

This group includes establishments primarily engaged in manufacturing fabricated millwork, and wooden kitchen cabinets and bathroom vanities. Also included are establishments producing commercial hard- and/or softwood veneer and plywood; laminated or fabricated trusses, arches, and other structural members of lumber.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	14,530	100.00	na	na
MANAGERS AND OFFICERS	820	5.67	na	na
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	310	2.10	na	na
Accountants and Auditors	50	.33	27.47	32
Drafters	130	.88	33.16	24
Purchasing Agents and/or Buyers	40	.24	11.92	26
All Other Professional and Technical Workers	90	.64	na	na
SERVICE OCCUPATIONS, TOTAL	170	1.15	na	na
Janitors, Porters, and Cleaners	130	.89	16.09	44
All Other Service Workers	40	.26	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	11,820	81.46	na	na
Supervisors, Nonworking	370	2.54	12.97	56
Assemblers	1,720	11.86	14.55	53
Automatic Clippers, Veneer	50	.33	24.22	4
Boring-Machine Operators, Wood	30	.21	26.13	14
Cabinetmakers	1,770	12.24	16.22	40
Carrier Drivers	40	.24	37.05	10
Chain Offbearers, Lumber	90	.64	33.27	10
Core Feeders	140	.97	21.93	7
Cut-Off Saw Operators, Lumber	320	2.19	12.46	44
Dado Operators	40	.24	31.21	14
Delivery and Route Workers	100	.69	19.42	18

Table 19 (Continued) Millwork, Veneer, Plywood, and Structural Wood Members

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Edge Gluers	50	.36	22.45	10
Gluers and/or Cementers, Hand	110	.76	21.87	11
Gluing Machine Operators	80	.53	29.95	15
Helpers, Trades	360	2.51	21.47	25
Hot-Plate-Plywood-Press Operators	50	.36	24.46	4
Industrial Truck Operators	290	1.98	10.05	43
Loaders, Car and Truck	120	.82	27.40	21
Machine Setters, Woodworking	90	.63	17.54	22
Maintenance Repairers, General Utility	130	.89	23.39	38
Mechanics, Maintenance	40	.30	21.10	19
Millwrights	40	.25	45.52	8
Nailing-Machine Operators	100	.67	25.33	15
Off-Bearers	370	2.58	16.74	18
Painters, Production	120	.80	16.36	22
Power Screwdriver Operators	100	.67	20.13	18
Production Packagers, Hand or Machine	70	.50	19.88	18
Resawyers	50	.31	21.21	14
Ripsaw Operators	150	1.02	19.74	40
Rubbers	60	.39	37.13	6
Sanders, Wood	310	2.14	18.57	42
Saw Filers	30	.22	22.00	17
Shapers and/or Router Operators	110	.74	34.41	19
Tenoner Operators	70	.49	19.53	18
Trim Saw Operators	130	.89	24.41	18
Truck Drivers	190	1.29	24.48	33
Variety Saw Operators	100	.68	22.65	18
Veneer Drier Feeders	80	.53	23.38	6
Veneer Driers	40	.24	23.39	6
Veneer Graders	50	.32	26.54	6
Wood Machinists	390	2.67	24.00	22
Woodworking-Machine Operators	470	3.24	15.02	44
All Other Skilled Craftsmen and Kindred Workers	320	2.22	na	na
All Other Operatives and Semi-skilled Workers	780	5.40	na	na
All Other Laborers and Unskilled Workers	1,700	11.75	na	na
CLERICAL OCCUPATIONS, TOTAL	1,130	7.65	na	na
Accounting Clerks	60	.40	17.72	28
Bookkeepers, Hand	100	.69	41.99	21
General Clerks, Office	170	1.14	27.33	38
Production Clerks and/or Coordinators	50	.33	13.75	25

Table 19 (Continued) Millwork, Veneer, Plywood, and Structural Wood Members

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Secretaries	120	.85	23.01	49
Shipping and/or Receiving Clerks	80	.55	20.93	28
Shipping Packers	230	1.55	33.57	31
Stock Clerks-Stockroom, Warehouse, or Storage Yard	80	.53	16.41	22
All Other Office Clerical Workers	200	1.35	na	na
All Other Plant Clerical Workers	40	.25	na	na
SALES OCCUPATIONS, TOTAL	280	1.97	na	na
Sales Representatives, Agents, and/or Associates	270	1.87	15.47	50
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	89
Supervisors, Nonworking	56
Assemblers	53
Sales Representatives, Agents, and/or Associates	50
Secretaries	49

Table 20
SIC 244
Wood Containers

This group includes establishments primarily engaged in manufacturing nailed and lock corner wood boxes and shook, wood pallets and skids, and wood containers, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	2,270	100.00	na	na
MANAGERS AND OFFICERS.....	130	5.92	na	na
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	[2/]			
SERVICE OCCUPATIONS.....	40	1.81	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	1,930	85.11	na	na
Supervisors, Woodworking.....	40	1.75	24.66	47
Assemblers.....	170	7.22	23.64	31
Chain Offbearers, Lumber.....	40	1.92	26.66	16
Cut-Off Saw Operators, Lumber...	140	6.12	20.73	75
Industrial Truck Operators.....	80	3.41	21.27	47
Maintenance Repairers, General Utility.....	40	1.57	25.01	38
Nailing Machine Operators.....	260	11.51	25.58	63
Planer Operators.....	30	1.35	20.54	34
Ripsaw Operators.....	80	3.45	19.69	44
Trim Saw Operators.....	50	2.36	31.30	38
Truck Drivers.....	50	2.18	22.04	38
All Other Skilled Craftsmen and Kindred Workers.....	100	4.42	na	na
All Other Operatives and Semi-skilled Workers.....	490	21.43	na	na
All Other Laborers and Unskilled Workers.....	360	15.86	na	na
CLERICAL OCCUPATIONS, TOTAL.....	120	5.26	na	na
General Clerks, Office.....	30	1.35	18.91	44
All Other Clerical Workers.....	90	3.89	na	na

Table 20 (Continued) Wood Containers

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SALES OCCUPATIONS.....	[2]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	91
Cut-Off Saw Operators, Lumber	75
Nailing Machine Operators	63
Industrial Truck Operators	47
Supervisors, Nonworking	47

Table 21
SIC 245
Wood Buildings and Mobile Homes

This group includes establishments primarily engaged in manufacturing mobile homes and/or prefabricated wood buildings, sections, and panels.

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	7,440	100.00	na	na
MANAGERS AND OFFICERS.....	380	5.16	na	na
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	170	2.32	na	na
Accountants and Auditors.....	30	.44	15.41	44
Drafters.....	30	.41	12.20	38
Purchasing Agents and/or Buyers.	50	.67	11.43	74
All Other Professional and Technical Workers.....	60	.78	na	na
SERVICE OCCUPATIONS, TOTAL.....	130	1.70	na	na
Guards and Doorkeepers.....	40	.55	9.76	35
Janitors, Porters, and Cleaners.	80	1.06	8.64	47
All Other Service Workers.....	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	6,210	83.72	na	na
Supervisors, Nonworking.....	260	3.52	7.35	71
Assemblers.....	2,270	30.61	10.99	53
Cabinetmakers.....	150	2.01	24.33	44
Carpenters.....	810	10.96	20.32	41
Cut-Off Saw Operators, Lumber...	40	.47	14.29	26
Delivery and Route Workers.....	90	1.25	13.67	50
Electricians.....	230	3.06	28.36	56
Gluers and/or Cementers, Hand...	50	.63	32.55	12
Industrial Truck Operators.....	100	1.30	10.02	44
Inspectors.....	40	.48	21.09	38
Maintenance Repairers, General Utility.....	50	.70	12.10	53

Table 21 (Continued) Wood Buildings and Mobile Homes

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Painters, Production.....	50	.62	23.39	18
Plumbers and/or Pipefitters.....	110	1.44	33.90	44
Power Screwdriver Operators.....	30	.45	31.90	12
Shapers and/or Router Operators..	50	.63	22.45	9
Tenoner Operators.....	30	.43	23.74	9
Truck Drivers.....	150	2.07	17.18	50
Welders and/or Flamecutters.....	230	3.14	36.56	41
Woodworking Machine Operators....	30	.40	21.81	9
All Other Skilled Craftsmen and Kindred Workers.....	120	1.65	na	na
All Other Operatives and Semi-skilled Workers.....	650	8.78	na	na
All Other Laborers and Unskilled Workers.....	670	9.03	na	na
CLERICAL OCCUPATIONS, TOTAL.....	400	5.16	na	na
General Clerks, Office.....	90	1.16	18.93	38
Secretaries.....	50	.60	16.98	53
Shipping Packers.....	40	.54	18.78	21
All Other Office Clerical Workers	150	1.96	na	na
All Other Plant Clerical Workers.	70	.89	na	na
SALES OCCUPATIONS, TOTAL.....	150	1.94	na	na
Sales Representatives, Agents, and/or Associates.....	140	1.86	23.25	79
All Other Sales Workers.....	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Sales Representatives, Agents, and/or Associates	79
Purchasing Agents and/or Buyers	74
Supervisors, Nonworking	71
Electricians	56

Table 22
SIC 249
Miscellaneous Wood Products

This group includes establishments engaged in preserving wood; manufacturing particleboard; and manufacturing miscellaneous wood products, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	2,690	100.00	na	na
MANAGERS AND OFFICERS	210	7.84	11.01	83
PROFESSIONAL AND TECHNICAL OCCUPATIONS	[2]			
SERVICE OCCUPATIONS	50	1.77	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,090	77.88	na	na
Supervisors, Nonworking	90	3.31	10.48	38
Assemblers	200	7.37	22.94	23
Cut-Off Saw Operators, Lumber	50	1.88	27.08	26
Helpers, Trades	120	4.44	23.84	19
Industrial Truck Operators	120	4.59	15.82	45
Loaders, Car and Truck	50	1.73	47.47	17
Maintenance Repairers, General Utility	30	1.28	14.79	19
Painters, Production	70	2.56	34.74	17
Production Packagers, Hand or Machine	30	1.16	31.08	9
Sanders, Wood	60	2.25	26.37	19
Treating Engineers	50	1.92	20.89	21
Truck Drivers	80	3.01	14.03	34
Variety Saw Operators	50	1.69	38.08	6
Wood Machinists	140	5.19	35.48	23
All Other Skilled Craftsmen and Kindred Workers	140	5.16	na	na
All Other Operatives and Semi-skilled Workers	420	15.67	na	na
All Other Laborers and Unskilled Workers	390	14.58	na	na

Table 22 (Continued) Miscellaneous Wood Products

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
CLERICAL OCCUPATIONS, TOTAL.....	270	10.02	na	na
Bookkeepers, Hand.....	40	1.46	20.00	40
General Clerks, Office.....	60	2.07	19.26	26
Secretaries.....	40	1.65	20.43	45
Shipping Packers.....	40	1.46	21.07	26
All Other Office Clerical Workers	60	2.22	na	na
All Other Plant Clerical Workers.	30	1.13	na	na
SALES OCCUPATIONS, TOTAL.....	40	1.47	na	na
Sales Representatives, Agents, and/or Associates.....	30	1.28	39.26	23
All Other Sales Workers.....	[2]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	83
Industrial Truck Operators	45
Secretaries	45
Bookkeepers, Hand	40
Supervisors, Nonworking	38

SIC 25
FURNITURE AND FIXTURES

The Furniture and Fixtures Industry reported an estimated 17,000 employees as of June 1980. Most of the manufacturing plants operating in this industry are small and many specialize in mattress production--a significant industry in Texas because of its dependence on cotton supplies.

The two chief-producing segments of the Furniture and Fixtures Industry are Household Furniture (SIC 251) and Public Building and Related Furniture (SIC 253) which account for 55 and 22 percent of the total employment. Partitions, Shelving, Lockers, and Office and Store Fixtures (SIC 254) and Office Furniture (SIC 252) represent a mere 13 and 6 percent of the total employment.

As in other manufacturing industries, the majority of the occupations are focused in the blue-collar (Maintenance and Production) category. Assemblers, Nongarment Sewing Machine Operators, and Upholsterers are the most evident occupations within this category.

This industry experienced an employment slump since the last OES survey where mid-year employment was 17,790. Fluctuations, occurring throughout the industry, contributed to the employment decline.

Because the employment growth is related to the construction activity, any abatement in this area will create an impact on the industry. Manufacturing, which is becoming more and more mechanized, will also have an important effect on the industry's future growth. Through the mid-1980's, employment is expected to remain stationary.

Table 23
SIC 25
Furniture and Fixtures

This major group includes establishments engaged in manufacturing household, office, public buildings, and restaurant furniture; and office and store fixtures.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	17,060	100.00	na	na
MANAGERS AND OFFICERS	970	5.68	14.46	95
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	260	1.49	na	na
Accountants and Auditors	60	.32	30.40	21
Drafters	40	.24	21.70	14
Purchasing Agents and/or Buyers	70	.40	12.47	29
All Other Professional and Technical Workers	90	.51	na	na
SERVICE OCCUPATIONS, TOTAL	280	1.62	na	na
Janitors, Porters, and Cleaners	240	1.39	28.60	47
All Other Service Workers	40	.23	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	13,550	79.37	na	na
Supervisors, Nonworking	570	3.33	11.77	60
Assemblers	1,580	9.24	19.68	55
Boring Machine Operators, Wood	60	.32	40.24	12
Cabinetmakers	700	4.13	40.00	22
Cushion Makers	240	1.41	26.22	29
Cut-Off Saw Operators, Lumber	200	1.17	27.86	31
Delivery and Route Workers	90	.49	40.00	14
Drill-Press and/or Boring Machine Operators	80	.45	1.06	6
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	70	.41	27.24	6
Furniture, Finishers	90	.54	15.76	11

Table 23 (Continued) Furniture and Fixtures

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Gluers and/or Cementers, Hand...	190	1.11	12.05	12
Grinding and/or Abrading Machine Operators, Metal.....	160	.94	10.89	7
Helpers, Trades.....	340	2.01	26.07	19
Industrial Truck Operators.....	140	.82	18.92	27
Inspectors.....	200	1.15	35.88	25
Laminating Machine Operators, Furniture.....	110	.63	30.95	19
Lay-Out Markers, Wood.....	50	.29	35.69	8
Machine Setters, Woodworking....	80	.44	21.55	11
Machine Tool Operators, Combination.....	130	.77	4.82	5
Maintenance Repairers, General Utility.....	110	.65	10.38	33
Mechanics, Maintenance.....	80	.45	13.01	12
Off-Bearers.....	30	.19	25.10	5
Order Fillers.....	60	.35	25.46	9
Painters, Production.....	260	1.53	31.05	37
Plastic-Top Installers.....	90	.49	37.02	14
Power Brake and/or Bending Machine Operators, Metal.....	100	.61	10.46	15
Power Screwdriver Operators.....	70	.39	37.16	6
Punch-Press Operators, Metal....	270	1.55	46.16	21
Punch-Press Setters, Metal.....	60	.32	5.50	8
Ripsaw Operators.....	180	1.06	35.12	32
Riveters, Light.....	60	.35	7.58	3
Rubbers.....	30	.19	48.82	5
Sanders, Wood.....	290	1.69	21.50	27
Sewing Machine Operators, Regular Equipment--Nongarment.	1,040	6.10	30.91	41
Sewing Machine Operators, Special and/or Automatic Equipment--Nongarment.....	190	1.10	25.32	20
Shaper and/or Router Operators..	110	.63	17.15	16
Shapers, Hand.....	50	.31	8.66	5
Shear and/or Slitter Operators, Metal.....	70	.41	5.49	10
Sorters, Upholstery Parts.....	60	.34	35.00	14
Spring Machine Operators.....	100	.56	30.21	5
Springers.....	130	.73	44.33	26
Staplers, Mattress and Bedspring.....	160	.93	29.76	6
Tenoner Operators.....	40	.22	21.26	6
Truck Drivers.....	300	1.74	25.78	42
Upholsterers.....	690	4.02	48.04	31
Upholstery Cutters.....	280	1.63	47.33	35
Variety Saw Operators.....	70	.39	30.29	13

Table 23 (Continued) Furniture and Fixtures

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Welders and/or Flamecutters	420	2.48	12.92	21
Wood Machinists	150	.85	25.06	15
Woodworking Machine Operators	160	.90	41.37	20
All Other Skilled Craftsmen and Kindred Workers	930	5.48	na	na
All Other Operatives and Semi-skilled Workers	1,030	6.04	na	na
All Other Laborers and Unskilled Workers	800	4.70	na	na
CLERICAL OCCUPATIONS, TOTAL	1,580	9.39	na	na
Clerical Supervisors, Office or Plant	50	.29	28.81	15
Accounting Clerks	60	.36	25.09	19
Bookkeepers, Hand	80	.47	34.11	30
General Clerks, Office	230	1.33	28.67	41
Order Clerks	40	.22	8.99	13
Payroll and/or Timekeeping Clerks	50	.30	16.80	19
Production Clerks and/or Coordinators	110	.66	2.56	18
Shipping and/or Receiving Clerks	170	.99	22.17	47
Shipping Packers	230	1.36	22.66	39
Stock Clerks-Stockroom, Warehouse, or Storage Yard	110	.64	3.29	18
Switchboard Operator-Receptionists	30	.19	6.18	20
Typists	40	.24	12.34	9
All Other Clerical Workers	380	2.25	na	na
SALES OCCUPATIONS, TOTAL	420	2.45	na	na
Sales Representatives, Agents, and/or Associates	390	2.30	29.61	47
All Other Sales Workers	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 23 (Continued) Furniture and Fixtures

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	95
Supervisors, Nonworking	60
Assemblers	55
Janitors, Porters, and Cleaners	47
Sales Representatives, Agents, and/or Associates	47
Shipping and/or Receiving Clerks	47

Table 24
SIC 251
Household Furniture

This group includes establishments primarily engaged in manufacturing wood and/or metal household furniture, upholstered or not upholstered; mattresses and bedsprings; wood television, radio, phonograph, and sewing machine cabinets; and household furniture, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	9,390	100.00	na	na
MANAGERS AND OFFICERS	530	5.65	23.09	95
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	100	1.03	na	na
Purchasing Agents and/or Buyers	40	.41	22.00	40
All Other Professional and Technical Workers	60	.62	na	na
SERVICE OCCUPATIONS, TOTAL	180	1.90	na	na
Janitors, Porters, and Cleaners	150	1.61	43.85	49
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	7,500	80.04	na	na
Supervisors, Nonworking	300	3.20	13.12	58
Assemblers	620	6.56	23.47	53
Cushion Makers	190	2.00	33.39	47
Cut-Off Saw Operators, Lumber	110	1.13	48.54	37
Delivery and Route Workers	80	.85	42.47	26
Furniture Finishers	60	.66	18.43	14
Helpers, Trades	220	2.37	39.17	12
Industrial Truck Operators	80	.88	31.67	35
Lay-Out Markers, Wood	50	.50	38.73	14
Machine Setters, Woodworking	60	.64	24.51	18
Maintenance Repairers, General Utility	60	.63	18.06	39
Mechanics, Maintenance	60	.63	16.65	18

Table 24 (Continued) Household Furniture

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Order Fillers	40	.44	35.95	9
Power Screwdriver Operators	50	.56	6.09	9
Ripsaw Operators	130	1.36	48.76	46
Sanders, Wood	150	1.64	38.26	23
Sewing Machine Operators, Regular Equipment--Nongarment	830	8.87	21.36	67
Sewing Machine Operators, Special and/or Automatic Equipment--Nongarment	170	1.85	26.05	40
Shapers and/or Router Operators	50	.54	35.05	18
Shapers, Hand	40	.38	12.91	7
Sorters, Upholstery Parts	60	.60	35.48	30
Spring Machine Operators	100	1.02	30.21	12
Staplers, Mattress and Bedspring	160	1.69	29.76	14
Truck Drivers	230	2.49	23.70	60
Upholsterers	520	5.55	34.29	42
Upholstery Cutters	230	2.48	17.17	58
Upholstery Trimmers	100	1.10	49.61	35
Variety Saw Operators	40	.43	49.33	18
All Other Skilled Craftsmen and Kindred Workers	820	8.76	na	na
All Other Operatives and Semi-skilled Workers	1,470	15.62	na	na
All Other Laborers and Unskilled Workers	420	4.51	na	na
CLERICAL OCCUPATIONS, TOTAL	820	8.60	na	na
Clerical Supervisors, Office or Plant	40	.43	35.60	21
General Clerks, Office	140	1.44	42.90	46
Shipping and/or Receiving Clerks	100	1.04	36.95	53
Shipping Packers	110	1.17	45.30	33
Stock Clerks-Stockroom, Warehouse, or Storage Yard	50	.51	7.35	28
All Other Office Clerical Workers	340	3.61	na	na
All Other Plant Clerical Workers	40	.38	na	na
SALES OCCUPATIONS, TOTAL	260	2.78	na	na
Sales Representatives, Agents, and/or Associates	240	2.56	47.33	53
All Other Sales Workers	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 24 (Continued) Household Furniture

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	95
Sewing Machine Operators, Regular Equipment--Nongarment	67
Truck Drivers	60
Supervisors, Nonworking	58
Upholstery Cutters	58

Table 25
SIC 252
Office Furniture

This group includes establishments primarily engaged in manufacturing wood and metal office furniture, whether padded, upholstered, or plain.

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	1,120	100.00	na	na
MANAGERS AND OFFICERS	80	7.44	3.99	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS	[2]			
SERVICE OCCUPATIONS	[2]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	830	73.87	na	na
Supervisors, Nonworking	40	3.79	7.20	63
Assemblers	100	9.40	5.19	63
Cabinetmakers	70	5.96	17.38	37
Helpers, Trades	40	3.25	10.81	42
Painters, Production	50	4.06	6.37	63
Sanders, Wood	4[illegible]	3.34	13.65	47
Upholsterers	70	6.23	13.77	47
Welders and/or Flamecutters	50	4.79	7.21	21
All Other Skilled Craftsmen and Kindred Workers	60	5.44	na	na
All Other Operatives and Semi-skilled Workers	260	23.23	na	na
All Other Laborers and Unskilled Workers	50	4.17	na	na
CLERICAL OCCUPATIONS	140	12.43	na	na
SALES OCCUPATIONS	[2]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 25 (Continued) Office Furniture

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Assemblers	63
Painters, Production	63
Supervisors, Nonworking	63
Sanders, Wood	47
Upholsterers	47

Table 26
SIC 253
Public Building and Related Furniture

This group includes establishments primarily engaged in manufacturing furniture for schools, theaters, assembly halls, churches, and libraries. Also included are establishments engaged in manufacturing seats for public conveyances, as well as seats for automobiles and aircraft.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	3,680	100.00	na	na
MANAGERS AND OFFICERS	140	3.73	46.80	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS	60	1.64	na	na
SERVICE OCCUPATIONS	40	1.04	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.	3,020	82.12	na	na
Supervisors, Nonworking	140	3.92	36.33	67
Cabinetmakers	50	1.25	23.91	25
Cushion Makers	40	1.17	15.65	58
Cut-Off Saw Operators, Lumber	40	.98	35.67	25
Drill-Press and/or Boring Machine Operators	70	1.85	.48	33
Gluers and/or Cementers, Hand	140	3.89	3.59	33
Grinding and/or Abrading Machine Operators, Metal	120	3.13	.15	25
Inspectors	50	1.25	3.72	50
Machine Tool Operators, Combination	70	1.90	5.49	25
Painters, Production	60	1.71	12.32	75
Punch-Press Operators, Metal	40	1.14	4.68	50
Welders and/or Flamecutters	190	5.03	15.42	58
All Other Skilled Craftsmen and Kindred Workers	390	10.54	na	na
All Other Operatives and Semi-skilled Workers	1,390	37.89	na	na
All Other Laborers and Unskilled Workers	230	6.36	na	na

Table 26 (Continued) Public Building and Related Furniture

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
CLERICAL OCCUPATIONS, TOTAL.....	360	9.83	na	na
Production Clerks and/or Coordinators.....	70	1.96	.13	42
Shipping and/or Receiving Clerks.	30	.87	14.20	75
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	50	1.25	.53	25
All Other Clerical Workers.....	210	5.73	na	na
SALES OCCUPATIONS,TOTAL.....	60	1.64	na	na
Sales Representatives, Agents, and/or Associates.....	60	1.60	25.16	50
All Other Sales Workers.....	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Painters, Production	75
Shipping and/or Receiving Clerks	75
Supervisors, Nonworking	67
Cushion Makers	58
Welders and/or Flamecutters	58

Table 27
SIC 254
Partitions, Shelving, Lockers, and Office and Store Fixtures

This group includes establishments primarily engaged in manufacturing wood or metal shelving, storage racks, lockers, office and store fixtures, prefabricated partitions, plastic laminated fixture tops, and related fabricated products.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	2,300	100.00	na	na
MANAGERS AND OFFICERS	150	6.44	8.19	91
PROFESSIONAL AND TECHNICAL OCCUPATIONS	60	2.54	na	na
SERVICE OCCUPATIONS, TOTAL	30	1.58	na	na
Janitors, Porters, and Cleaners	30	1.44	22.70	43
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	1,770	76.73	na	na
Supervisors, Nonworking	70	3.01	15.12	60
Assemblers	230	9.92	21.11	49
Cabinetmakers	220	9.44	23.63	34
Helpers, Trades	60	2.75	31.51	23
Painters, Production	80	3.45	12.89	46
Plastic-Top Installers	50	1.96	36.94	17
Power Brake and/or Bending Machine Operators, Metal	60	2.40	11.07	26
Punch-Press Operators, Metal	40	1.92	12.83	23
Sanders, Wood	70	3.01	17.17	29
Welders and/or Flamecutters	130	5.50	9.90	26
Wood Machinists	60	2.57	38.62	17
Woodworking Machine Operators	40	1.66	35.64	20
All Other Skilled Craftsmen and Kindred Workers	120	5.39	na	na
All Other Operatives and Semi-skilled Workers	400	17.48	na	na
All Other Laborers and Unskilled Workers	140	6.09	na	na

Table 27 (Continued) Partitions, Shelving, Lockers, and Office and Store Fixtures

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
CLERICAL OCCUPATIONS, TOTAL.....	230	9.99	na	na
General Clerks, Office.....	50	2.14	25.88	40
Shipping Packers.....	40	1.88	27.29	34
All Other Office Clerical Workers..	100	4.34	na	na
All Other Plant Clerical Workers...	40	1.62	na	na
SALES OCCUPATIONS, TOTAL.....	60	2.72	na	na
Sales Representatives, Agents, and/or Associates...	60	2.66	24.20	37
All Other Sales Workers.....	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	91
Supervisors, Nonworking	60
Assemblers	49
Painters, Production	46
Janitors, Porters, and Cleaners	43

SIC 26
PAPER AND ALLIED PRODUCTS

The total employment for Paper and Allied Products is approximately 22,000 (April 1980). This is an overall employment growth of 28 percent over the 1977 survey period.

In this industry, the three major publishable divisions are: Paper Mills (SIC 262), Converted Paper and Paperboard Products (SIC 264), and Paperboard Containers and Boxes (SIC 265). Combined, these divisions make up 87 percent of the paper industry's total employment.

Fewer than a dozen establishments actually produce wood pulp and paper. Those firms are located in the Eastern part of the State where timber is readily available. Most of the establishments in the paper industry are associated with the production of paper boxes, bags, stationery, and domestic products.

The Paper and Allied Products Industry is very sensitive to changes in the economic fluctuations of the country. The duration of the downturn in the housing market and the increased use of labor-saving machinery is expected to moderate demand for production workers and at the same time, in some areas, increase the demand for engineers, technicians, and maintenance workers.

Table 28
SIC 26
Paper and Allied Products

This major group includes the manufacture of pulps from wood and other cellulose fibers, and from rags; the manufacture of paper and paperboard; and the manufacture of paper and paperboard into converted products such as paper coated off the paper machine, paper bags, paper boxes, and envelopes.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	21,980	100.00	na	na
MANAGERS AND OFFICERS	1,180	5.38	7.91	98
PROFESSIONAL AND TECHNICAL OCCUPATIONS,TOTAL	760	3.45	na	na
Accountants and Auditors	120	.52	11.36	43
Commercial Artists	80	.34	34.32	17
Industrial Engineers	80	.36	16.13	24
Personnel and Labor Relations Specialists	50	.24	6.08	33
Purchasing Agents and/or Buyers	70	.31	16.06	37
All Other Engineers	100	.47	na	na
All Other Professional and Technical Workers	260	1.17	na	na
SERVICE OCCUPATIONS,TOTAL	380	1.72	na	na
Supervisors, Nonworking--Service	50	.21	24.59	11
Guards and Doorkeepers	50	.24	11.32	11
Janitors. Porters, and Cleaners	230	1.04	11.67	70
All Other Service Workers	50	.21	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	16,880	76.94	na	na
Supervisors, Nonworking	880	3.98	6.79	62
Assemblers	220	1.00	44.19	10
Back Tenders	190	.86	4.71	9
Baling Machine Operators	190	.88	12.08	54
Beater Engineers	30	.15	8.55	6
Beaters	30	.14	13.21	5

Table 28 (Continued) Paper and Allied Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Bindery Workers, Assembly	60	.27	43.30	6
Bleacher Operators, Pulp	30	.15	7.64	4
Brown-Stock Washers and/or Blow-Pit Operators	30	.13	11.99	5
Carton-Forming Machine Operators	70	.33	23.61	6
Chemical Operator Helpers	50	.21	10.84	5
Chemical Operators-A	120	.55	8.11	6
Chemical Operators-B	210	.96	4.98	6
Chief Operators	50	.22	21.48	5
Coater Operators, Office-Machine	110	.50	12.00	7
Combiner Operators	120	.55	6.07	4
Conveyer Operators or Tenders	280	1.29	3.32	11
Corrugator-Knife Operators	70	.30	10.88	21
Corrugator Operators	210	.95	6.02	29
Cutters, Machine	240	1.06	41.97	21
Cutting-and-Creasing Press Operators	90	.41	49.00	16
Cylinder Machine Tenders	50	.23	0.00	4
Delivery and Route Workers	80	.36	34.32	17
Die Cutters and/or Clicking Machine Operators	180	.83	18.78	24
Die Mounters	80	.34	17.73	32
Electricians	90	.42	19.22	17
Ending-Machine Operators	50	.24	32.04	7
Envelope-Finishing Machine Operators	30	.15	37.77	6
Envelope Machine Operators	420	1.91	21.09	11
Evaporator Operators, Papermaking	30	.13	3.88	4
Extruder Operator Helpers, Plastics or Rubber	30	.14	29.87	4
Flexo-Folder-Gluer Operators	180	.80	19.58	29
Folding Machine Feeders	40	.20	40.90	4
Folding Machine Operators, Paper	60	.27	38.89	6
Fourdrinier-Machine Tenders	120	.52	8.44	6
Fourth Hands and/or Fifth Hands, Paper Machine	140	.63	12.44	6
Helpers, Trades	500	2.28	20.06	34
Industrial Truck Operators	610	2.76	7.74	65
Inspectors	150	.69	19.89	15
Layboy Tenders	30	.15	25.54	6
Machine Setters, Paper Goods	530	2.39	16.67	28
Machinists	70	.32	9.11	16
Maintenance Repairers, General Utility	210	.95	10.71	44
Mechanics, Automotive	30	.14	11.98	13
Mechanics, Maintenance	560	2.54	17.85	37
Millwrights	60	.27	31.73	6
Mixers and/or Blenders, Chemicals and Chemical Products	70	.30	17.49	11

Table 28 (Continued) Paper and Allied Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Oilers	50	.21	22.07	12
Order Fillers	80	.37	18.89	21
Panel Machine Operators, Patch Machine Operators, and/or Sealing Machine Operators	50	.20	47.09	5
Paper Die Makers	30	.14	26.71	9
Paper-Reel Operators and/or Rewinder Operators	150	.66	31.71	15
Power Press Tenders	70	.30	17.23	6
Press Operators and/or Plate Printers	470	2.12	37.30	34
Printer-Slotter Feeders	140	.62	14.85	24
Printer-Slotter Operators	180	.80	37.29	28
Production Packagers, Hand or Machine	810	3.69	22.29	38
Scrappers and/or Strippers, Hand or Machine	190	.86	11.34	13
Slitter-Creaser-Slotter Operators	80	.37	25.51	15
Slitter-Scorer-Cut-Off Operators	90	.41	9.91	22
Slitting Machine Operators	190	.88	27.03	29
Slotter Operators	60	.25	10.49	12
Stapling Machine Operators	50	.24	16.65	13
Taping Machine Operators	130	.59	20.16	33
Testers	140	.61	6.10	10
Truck Drivers	510	2.30	11.32	54
Waxing Machine Operators	80	.35	35.92	17
Winders, Paper Machine	90	.40	11.74	9
All Other Bindery Workers	80	.36	na	na
All Other Mechanics and Repairers	60	.28	na	na
All Other Skilled Craftsmen and Kindred Workers	560	2.57	na	na
All Other Operatives and Semi-skilled Workers	2,740	12.46	na	na
All Other Laborers and Unskilled Workers	2,120	9.64	na	na
CLERICAL OCCUPATIONS, TOTAL	2,180	9.79	na	na
Clerical Supervisors, Office or Plant	150	.67	17.57	33
Accounting Clerks	150	.66	12.57	55
Bookkeepers, Hand	40	.15	46.49	17
Bookkeeping and/or Billing Machine Operators	40	.18	10.20	21
Box Estimators, Paperboard Products	60	.27	41.25	22
Computer Operators	50	.20	30.33	21
General Clerks, Office	120	.52	28.07	34
Keypunch Operators	40	.16	30.60	13

Table 28 (Continued) Paper and Allied Products

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Order Clerks	170	.75	15.26	48
Payroll and/or Timekeeping Clerks	80	.34	14.12	46
Personnel Clerks	30	.15	12.51	22
Production Clerks and/or Coordinators	150	.69	14.83	51
Secretaries	200	.89	12.38	62
Shipping and/or Receiving Clerks	180	.82	19.59	61
Shipping Packers	190	.88	30.55	26
Stock Clerks-Stockroom, Warehouse, or Storage Yard	110	.47	8.13	23
Switchboard Operator-Receptionists	80	.34	18.88	54
Typists	50	.22	7.35	22
All Other Office Clerical Workers	220	1.02	na	na
All Other Plant Clerical Workers	70	.31	na	na
SALES OCCUPATIONS, TOTAL	600	2.72	na	na
Sales Representatives, Agents, and/or Associates	590	2.66	12.46	71
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	98
Sales Representatives, Agents, and/or Associates	71
Janitors, Porters, and Cleaners	70
Industrial Truck Operators	65
Secretaries	62
Supervisors, Nonworking	62

Table 29
SIC 262
Paper Mills, Except Building Paper Mills

This group includes establishments primarily engaged in manufacturing paper (except building paper) from wood pulp and other fibers, and which may also manufacture converted paper products. Pulp mills combined with paper mills, and not separately reported, are also included in this industry.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	4,130	100.00	na	na
MANAGERS AND OFFICERS	130	3.04	3.91	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS	220	5.33	na	na
SERVICE OCCUPATIONS, TOTAL	80	2.05	na	na
Janitors, Porters, and Cleaners	40	1.07	15.64	75
All Other Service Workers	40	.97	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,330	80.48	na	na
Supervisors, Nonworking	200	4.95	8.86	100
Back Tenders	100	2.34	9.32	100
Beaters	30	.78	13.21	100
Chemical Operators-A	50	1.09	22.17	75
Chemical Operators-B	40	1.02	25.02	75
Chief Operators	40	1.02	25.06	75
Fourdrinier Machine Tenders	50	1.09	21.77	75
Fourth Hands and/or Fifth Hands, Paper Machine	130	3.24	13.01	100
Industrial Truck Operators	90	2.12	20.53	75
Paper-Reel Operators and/or Rewinder Operators	60	1.34	29.83	75
Production Packagers, Hand or Machine	90	2.29	18.52	75
Testers	70	1.73	11.18	75
Truck Drivers	60	1.38	21.45	75
Winders, Paper Machine	50	1.09	21.77	75
All Other Skilled Craftsmen and Kindred Workers	680	16.52	na	na

Table 29 (Continued) Paper Mills, Except Building Paper Mills

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Operatives and Semi-skilled Workers	880	21.32	na	na
All Other Laborers and Unskilled Workers	710	17.16	na	na
CLERICAL OCCUPATIONS, TOTAL	350	8.64	na	na
Secretaries	40	1.07	2.40	100
Stock Clerks-Stockroom, Warehouse, or Storage Yard	50	1.17	10.13	75
All Other Office Clerical Workers	210	5.18	na	na
All Other Plant Clerical Workers	50	1.22	na	na
SALES OCCUPATIONS	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Back Tenders	100
Beaters	100
Fourth Hands and/or Fifth Hands, Paper Machine	100
Managers and Officers	100
Secretaries	100
Supervisors, Nonworking	100

Table 30
SIC 264
Converted Paper and Paperboard Products, Except Containers and Boxes

This group includes establishments primarily engaged in manufacturing coated, glazed, or varnished paper; envelopes; bags, except textile bags; die-cut paper and paperboard and cardboard; pressed and molded pulp goods; sanitary paper products; stationery, tablets and related products; and converted paper and paperboard products, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	7,180	100.00	na	na
MANAGERS AND OFFICERS.....	510	7.11	12.38	97
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	280	3.81	na	na
Accountants and Auditors.....	40	.51	14.04	30
Commercial Artists.....	60	.80	44.41	27
All Other Professional and Technical Workers.....	180	2.49	na	na
SERVICE OCCUPATIONS, TOTAL.....	140	1.84	na	na
Janitors, Porters, and Cleaners.	90	1.19	19.45	64
All Other Service Workers.....	50	.64	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.	5,080	71.12	na	na
Supervisors, Nonworking.....	240	3.34	8.57	55
Assemblers.....	120	1.61	33.75	9
Baling Machine Operators.....	30	.43	16.12	36
Bindery Workers, Assembly.....	60	.85	43.30	15
Die Cutters and/or Clicking Machine Operators.....	110	1.53	21.91	21
Electricians.....	40	.51	23.27	21
Envelope-Finishing Machine Operators.....	30	.47	37.77	15
Envelope Machine Operators.....	420	5.85	21.09	27
Extruder Operator Helpers, Plastics or Rubber.....	30	.44	29.87	9

Table 30 (Continued) Converted Paper and Paperboard Products, Except Containers and Boxes

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Helpers, Trades	120	1.72	20.31	36
Industrial Truck Operators	150	2.13	13.07	45
Inspectors	70	.92	26.51	15
Machine Setters, Paper Goods	300	4.18	19.56	36
Maintenance Repairers, General Utility	50	.75	14.55	39
Mechanics, Maintenance	100	1.38	10.64	33
Panel Machine Operators, Patch Machine Operators, and/or Sealing Machine Operators	50	.64	47.09	12
Paper-Reel Operators and/or Rewinder Operators	50	.66	36.17	15
Truck Drivers	100	1.42	22.97	30
All Other Bindery Workers	80	1.12	na	na
All Other Skilled Craftsmen and Kindred Workers	130	1.84	na	na
All Other Operatives and Semi-skilled Workers	2,270	31.77	na	na
All Other Laborers and Unskilled Workers	530	7.43	na	na
CLERICAL OCCUPATIONS, TOTAL	910	12.51	na	na
Clerical Supervisors, Office or Plant	70	.92	30.75	33
Accounting Clerks	60	.79	24.06	48
General Clerks, Office	50	.72	45.59	39
Order Clerks	70	1.03	18.94	52
Production Clerks and/or Coordinators	50	.65	12.14	39
Secretaries	80	1.08	26.21	52
Shipping and/or Receiving Clerks	80	1.07	40.38	70
Shipping Packers	150	2.07	38.70	48
Stock Clerks-Stockroom, Warehouse, or Storage Yard	30	.41	19.40	27
Switchboard Operator-Receptionists	40	.53	32.29	61
All Other Clerical Workers	230	3 17	na	na
SALES OCCUPATIONS, TOTAL	260	3.61	na	na
Sales Representatives, Agents, and/or Associates	260	3.58	19.63	70
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 30 (Continued) Converted Paper and Paperboard Products, Except Containers and Boxes

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	97
Sales Representatives, Agents, and/or Associates	70
Shipping and/or Receiving Clerks	70
Janitors, Porters, and Cleaners	64
Switchboard Operator-Receptionists	61

Table 31
SIC 265
Paperboard Containers and Boxes

This group includes establishments primarily engaged in manufacturing folding and set-up paperboard boxes from purchased paperboard; corrugated and solid fiber boxes from purchased paperboard of fiber stock; sanitary food containers from special food board; and fiber cans, tubes, drums, and similar products from purchased materials.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	7,770	100.00	na	na
MANAGERS AND OFFICERS.....	460	5.89	15.13	98
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	180	2.27	na	na
Accountants and Auditors.....	50	.58	26.03	44
All Other Professional and Technical Workers.....	130	1.68	na	na
SERVICE OCCUPATIONS, TOTAL.....	110	1.41	na	na
Janitors, Porters, and Cleaners.	80	.99	25.77	71
All Other Service Workers.....	30	.41	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	5,950	76.75	na	na
Supervisors, Nonworking.....	360	4.64	14.71	63
Baling Machine Operators.....	110	1.38	21.40	73
Carton-Forming Machine Operators	70	.94	23.61	12
Corrugator-Knife Operators.....	50	.67	13.02	37
Corrugator Operators.....	110	1.38	11.24	49
Cutting-and-Creasing Press Operators.....	90	1.18	49.00	32
Die Cutters and/or Clicking Machine Operators.....	70	.94	33.57	32
Die Mounters.....	60	.74	7.50	56
Ending Machine Operators.....	50	.64	33.83	12
Flexo-Folder-Gluer Operators....	170	2.14	20.58	56
Helpers, Trades.....	250	3.23	37.85	32

Table 31 (Continued) Paperboard Containers and Boxes

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Industrial Truck Operators.....	330	4.26	11.72	76
Inspectors.....	70	.85	36.06	15
Machine Setters, Paper Goods....	220	2.89	29.09	24
Maintenance Repairers, General Utility.....	110	1.43	16.06	49
Mechanics, Maintenance.....	180	2.26	28.57	37
Power Press Tenders.....	30	.42	34.92	7
Press Operators and/or Plate Printers.....	160	2.00	20.09	37
Printer-Slotter Feeders.....	140	1.77	14.85	49
Printer-Slotter Operators.....	130	1.68	32.26	54
Production Packagers, Hand or Machine.....	320	4.09	9.34	39
Scrappers and/or Strippers, Hand or Machine.....	100	1.26	21.36	20
Slitter-Creaser-Slotter Operators.....	80	1.02	26.48	27
Slitter-Scorer-Cut-Off Operators.....	40	.51	18.18	34
Slitting Machine Operators.....	60	.80	25.78	34
Stapling Machine Operators.....	40	.45	24.40	22
Taping Machine Operators.....	130	1.62	20.76	61
Truck Drivers.....	330	4.30	15.27	71
All Other Mechanics and Repairers	30	.40	na	na
All Other Skilled Craftsmen and Kindred Workers.....	120	1.58	na	na
All Other Operatives and Semi-skilled Workers.....	1,140	14.70	na	na
All Other Laborers and Unskilled Workers.....	800	10.37	na	na
CLERICAL OCCUPATIONS, TOTAL.....	760	9.72	na	na
Clerical Supervisors, Office or Plant.....	60	.72	28.74	32
Accounting Clerks.....	70	.85	18.36	56
Order Clerks.....	80	1.02	26.49	49
Payroll and/or Timekeeping Clerks	40	.51	25.98	49
Production Clerks and/or Coordinators.....	80	1.08	25.26	63
Secretaries.....	60	.72	23.69	66
Shipping and/or Receiving Clerks	80	1.03	21.15	56
Shipping Packers.....	40	.49	36.12	10
Switchboard Operator-Receptionists	30	.40	22.70	49
All Other Clerical Workers.....	220	2.86	na	na

Table 31 (Continued) Paperboard Containers and Boxes

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SALES OCCUPATIONS, TOTAL.....	310	3.96	na	na
Sales Representatives, Agents, and/or Associates.....	300	3.83	17.78	80
All Other Sales Workers.....	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	98
Sales Representatives, Agents, and/or Associates	80
Industrial Truck Operators	76
Baling Machine Operators	73
Janitors, Porters, and Cleaners	71
Truck Drivers	71

SIC 27
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES

In Texas, this industry employed approximately 62,000 employees during the survey period of May 1980--up 8 percent from 1977. In contrast to other manufacturing industries, the employment was almost equally distributed between the blue- and white-collar occupations. Offset Lithographic Press Operators is the largest single occupation appearing under Production, Maintenance, Construction, Repair, Material Handling, and Power Plant Occupations, Total.

The two major segments that comprised the bulk (73 percent) of the total employment are: Newspapers: Publishing, Publishing and Printing (SIC 271) and Commercial Printing (SIC 275). Newspapers captured the lead with 41 percent due to the Printing and Publishing segment being very widely dispersed throughout the State.

Occupational groups in this industry are expected to fluctuate; for example, Lithographic Craft Workers are expected to increase at different rates. Lithography does not require photoengraving, therefore, the demand and employment for photoengravers will take a dip. The trend toward computerization of typesetting operations will reduce the need for some machine operators in composing rooms, but at the same time, will create a demand for more computer typesetters.

Table 32
SIC 27
Printing, Publishing, and Allied Industries

This major group includes establishments engaged in printing by one or more of the common processes, such as letterpress, lithography, gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding, typesetting, engraving, photoengraving, and electrotyping. This major group also includes establishments engaged in publishing newspapers, books, and periodicals, regardless of whether or not they do their own printing. Excluded are news syndicates, and textile printing and finishing.

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	62,050	100.00	na	na
MANAGERS AND OFFICERS	5,670	9.15	6.29	88
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	6,300	10.14	na	na
Accountants and Auditors	160	.25	13.02	15
Commercial Artists	480	.77	11.36	16
Computer Programmers	130	.20	18.08	8
Designers	90	.14	28.96	4
Drafters	540	.86	15.62	10
Electric and Electronic Engineers	40	.05	33.02	2
Electrical and Electronic Technicians	70	.10	31.74	4
Estimators, Printing Services	170	.26	9.28	14
Librarians, Professional	30	.05	19.49	3
Personnel and Labor Relations Specialists	70	.10	17.02	6
Photographers	280	.44	12.77	8
Purchasing Agents and/or Buyers	150	.23	23.73	12
Reporters and Correspondents	1,830	2.92	10.44	10
Systems Analysts, Electronic Data Processing	60	.10	27.31	4
Writers and/or Editors	2,030	3.25	18.93	22
All Other Engineering Technicians	40	.06	na	na
All Other Engineers	60	.10	na	na
All Other Professional and Technical Workers	70	.12	na	na

Table 32 (Continued) Printing, Publishing, and Allied Industries

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SERVICE OCCUPATIONS, TOTAL.....	890	1.43	na	na
Supervisors, Nonworking--Service..	60	.08	25.55	4
Guards and Doorkeepers.....	40	.06	33.93	2
Janitors, Porters, and Cleaners...	690	1.11	10.04	30
All Other Service Workers.....	100	.16	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.....	29,440	47.46	na	na
Supervisors, Nonworking.....	1,470	2.34	13.26	28
Bindery Workers, Assembly.....	1,290	2.07	8.70	23
Bindery Workers, Stitching.....	220	.35	18.15	7
Bookbinders, Hand.....	370	.58	19.46	6
Bookbinders, Machine.....	960	1.54	18.23	21
Camera Operators, Printing.....	1,070	1.71	10.21	43
Copy Cutters.....	80	.12	20.53	2
Copy Markers.....	200	.32	20.01	5
Cutters, Machine.....	290	.46	9.55	13
Delivery and Route Workers.....	1,020	1.63	19.09	26
Developers and/or Projection Printers.....	110	.16	16.57	5
Electricians.....	100	.15	17.03	5
Gravure Press Operators, Rotogravure or Sheet Fed.....	70	.10	49.60	1
Hand Compositors.....	620	.98	44.70	17
Helpers, Trades.....	200	.31	37.80	4
Imposers and Makeup Arrangers.....	270	.43	24.72	7
Industrial Truck Operators.....	130	.21	16.98	4
Ink Workers.....	50	.07	26.95	2
Inspectors.....	260	.42	10.68	7
Layboy Tenders.....	60	.08	38.81	1
Letter Press Operators-Sheet, Roll, or Web Fed.....	1,840	2.95	10.88	26
Letterset Press Operators-Sheet, Roll, or Web Fed.....	190	.30	33.90	2
Linecasting Machine Keyboard Operators.....	140	.22	23.89	4
Linecasting Machine Operators.....	310	.50	14.71	12
Linecasting Machine Tenders.....	330	.53	48.30	7
Ludlow Machine Operators.....	30	.05	39.88	2
Machinists.....	100	.15	17.75	5
Mailers.....	1,100	1.76	10.12	13
Maintenance Repairers, General Utility.....	160	.25	17.37	7
Mechanics, Maintenance.....	210	.33	13.49	9

Table 32 (Continued) Printing, Publishing, and Allied Industries

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Monotype Keyboard Operators.....	70	.10	31.92	2
Offset Lithographic Press Operators-Sheet, Roll, or Web Fed.....	4,490	7.18	6.43	46
Order Fillers.....	50	.08	35.41	3
Pasteup Workers.....	1,400	2.23	9.76	20
Photoengravers.....	200	.31	18.73	5
Photolettering Machine Operators...	70	.10	42.08	3
Phototypsetter Operators.....	340	.54	11.16	12
Phototypesetting Machine Keyboard Operators.....	350	.55	19.16	7
Photypesetting Machine Monitors....	260	.41	22.51	7
Platemakers.....	620	1.00	10.36	30
Press Assistants and Feeders.....	1,030	1.65	8.45	20
Production Packagers, Hand or Machine.....	460	.72	29.60	6
Proof Press Operators.....	70	.10	24.47	4
Proofreaders, Composed Copy.....	790	1.25	12.62	29
Retouchers.....	80	.12	13.64	5
Screen Maker , Photographic Process	30	.05	32.83	2
Screen or Stencil Printers and/or Setters.....	270	.43	48.45	4
Setters, Bindery Machines.....	340	.54	24.88	8
Strike-On Machine Operators.....	40	.06	23.05	3
Strippers.....	1,300	2.07	9.86	32
Truck Drivers.....	300	.48	15.48	11
All Other Bindery Workers.....	1,380	2.22	na	na
All Other Mechanics and Repairers..	40	.06	na	na
All Other Skilled Craftsmen and Kindred Workers.....	740	1.19	na	na
All Other Operatives and Semi-skilled Workers.....	860	1.39	na	na
All Other Laborers and Unskilled Workers.....	610	.98	na	na
CLERICAL OCCUPATIONS, TOTAL.....	13,290	21.40	na	na
Clerical Supervisors, Office or Plant.....	310	.48	10.99	11
Accounting Clerks.....	530	.84	9.28	22
Bookkeepers, Hand.....	1,280	2.04	11.75	45
Bookkeeping and/or Billing Machine Operators.....	90	.13	24.67	5
Cashiers.....	100	.15	21.50	5
Classified-Ad Clerks, Newspaper....	230	.36	20.52	5
Computer Operators.....	140	.22	12.78	9
Customer Service Representatives, Printing and Publishing.....	630	1.01	11.99	13

Table 32 (Continued) Printing, Publishing, and Allied Industries

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
File Clerks	210	.33	16.16	10
General Clerks, Office	1,380	2.21	13.32	35
Inserting and/or Labeling Machine Operators	340	.53	40.68	4
Keypunch Operators	190	.30	12.78	8
Messengers	250	.39	17.18	8
Order Clerks	550	.87	20.61	12
Payroll and/or Timekeeping Clerks	140	.22	14.76	15
Personnel Clerks	70	.11	15.74	8
Procurement Clerks	40	.06	15.01	6
Production Clerks and/or Coordinators	350	.56	12.69	16
Receptionists	90	.14	21.78	11
Secretaries	1,190	1.91	8.91	46
Shipping and/or Receiving Clerks	590	.93	9.30	31
Shipping Packers	280	.44	12.76	11
Statistical Clerks	50	.08	21.94	5
Stenographers	60	.08	17.44	4
Stock Clerks-Stockroom, Warehouse, or Storage Yard	250	.40	15.92	11
Switchboard Operator-Receptionists	130	.20	10.86	15
Switchboard Operators	150	.23	13.45	7
Telephone Ad-Takers, Newspaper	850	1.36	15.23	7
Typists	1,310	2.10	15.73	40
All Other Office Machine Operators	150	.25	na	na
All Other Office Clerical Workers	1,280	2.07	na	na
All Other Plant Clerical Workers	80	.14	na	na
SALES OCCUPATIONS, TOTAL	6,460	10.42	na	na
Sales Representatives, Agents, and/or Associates	4,480	7.17	10.98	58
All Other Sales Workers	1,980	3.19	na	na

1/ Based on unrounded data.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	88
Sales Representatives, Agents, and/or Associates	58
Bookkeepers, Hand	46
Offset Lithographic Press Operators-Sheet, Roll, or Web Fed	46
Secretaries	46

Table 33
SIC 271
Newspapers: Publishing, Publishing and Printing

This group includes establishments primarily engaged in publishing newspapers, or in publishing and printing newspapers. These establishments perform the various operations necessary for issuing newspapers, including the gathering of news and the preparation of editorials and advertisements, but may or may not perform their own printing.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	25,230	100.00	na	na
MANAGERS AND OFFICERS.....	2,200	8.71	15.05	94
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	4,100	16.24	na	na
Accountants and Auditors.....	70	.26	25.85	42
Commercial Artists.....	160	.63	18.25	45
Computer Programmers.....	40	.17	33.79	27
Photographers.....	250	1.00	13.81	64
Reporters and Correspondents....	1,730	6.85	10.96	79
Writers and/or Editors.....	1,640	6.47	23.35	82
All Other Professional Workers..	160	.64	na	na
All Other Technical Workers.....	50	.19	na	na
SERVICE OCCUPATIONS, TOTAL.....	450	1.77	na	na
Supervisors, Nonworking--Service	40	.13	39.46	33
Janitors, Porters, and Cleaners.	300	1.20	20.14	58
All Other Service Workers.....	110	.43	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	8,020	31.79	na	na
Supervisors, Nonworking.....	680	2.69	26.93	42
Camera Operators, Printing.....	200	.80	41.09	57
Copy Markers.....	60	.24	36.35	18
Delivery and Route Workers.....	560	2.20	33.54	42
Electricians.....	70	.25	23.96	18
Imposers and Makeup Arrangers...	130	.53	43.79	12

Table 33 (Continued) Newspapers: Publishing, Publishing and Printing

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Industrial Truck Operators.....	70	.26	30.01	12
Letter Press Operators-Sheet, Roll, or Web Fed.....	640	2.53	24.11	42
Letterset Press Operators-Sheet, Roll, or Web Fed.....	70	.26	35.94	9
Machinists.....	60	.23	24.28	24
Mailers.....	940	3.72	11.43	58
Maintenance Repairers, General Utility.....	50	.21	38.96	12
Mechanics, Maintenance.....	50	.19	36.36	21
Offset Lithographic Press Operators-Sheet, Roll, or Web Fed.....	530	2.09	34.34	45
Pasteup Workers.....	940	3.73	12.97	70
Photoengravers.....	100	.39	27.12	9
Phototypesetter Operators.....	160	.61	15.76	30
Phototypesetting-Machine Keyboard Operators.....	250	.97	23.04	39
Phototypesetting Machine Monitors	200	.78	28.32	45
Platemakers.....	100	.39	24.50	39
Press Assistants and Feeders.....	70	.28	35.14	15
Truck Drivers.....	160	.62	26.27	27
All Other Mechanics and Repairers	30	.12	na	na
All Other Skilled Craftsmen and Kindred Workers.....	810	3.22	na	na
All Other Operatives and Semi-skilled Workers.....	780	3.10	na	na
All Other Laborers and Unskilled Workers.....	310	1.24	na	na
CLERICAL OCCUPATIONS, TOTAL.....	6,150	24.42	na	na
Clerical Supervisors, Office or Plant.....	200	.78	14.24	45
Accounting Clerks.....	250	1.00	16.40	52
Bookkeepers, Hand.....	540	2.12	24.96	61
Cashiers.....	90	.36	22.38	48
Classified-Ad Clerks, Newspaper..	230	.91	20.52	52
Computer Operators.....	50	.20	20.51	27
Customer Service Representatives, Printing and Publishing.....	210	.83	26.00	27
File Clerks.....	90	.36	32.56	15
General Clerks, Office.....	360	1.43	38.70	36
Inserting and/or Labeling Machine Operators.....	300	1.19	44.98	18
Keypunch Operators.....	40	.16	34.05	21

Table 33 (Continued) Newspapers: Publishing, Publishing and Printing

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Messengers	180	.72	22.63	39
Order Clerks	250	1.00	41.89	27
Payroll and/or Timekeeping Clerks	70	.25	28.48	52
Production Clerks and/or Coordinators	100	.40	32.91	27
Secretaries	350	1.39	21.83	64
Stock Clerks-Stockroom, Warehouse, or Storage Yard	100	.40	30.59	21
Switchboard Operator-Receptionists	40	.15	28.08	21
Switchboard Operators	130	.49	15.10	48
Telephone Ad-Takers, Newspaper	820	3.25	15.70	67
Typists	440	1.73	43.84	61
All Other Office Machine Operators	60	.24	na	na
All Other Office Clerical Workers	1,190	4.69	na	na
All Other Plant Clerical Workers	60	.24	na	na
SALES OCCUPATIONS, TOTAL	4,310	17.07	na	na
Sales Representatives, Agents, and/or Associates	2,410	9.53	19.76	94
All Other Sales Workers	1,900	7.54	na	na

1/ Based on unrounded data.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	94
Sales Representatives, Agents, and/or Associates	94
Writers and/or Editors	82
Reporters and Correspondents	79
Pasteup Workers	70

Table 34
SIC 276
Manifold Business Forms

This group includes establishments primarily engaged in designing and printing, by any process, special forms in single and multiple sets for use in the operation of a business. This includes carbonized or interleaved with carbon or otherwise processed for multiple reproduction.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	5,010	100.00	na	na
MANAGERS AND OFFICERS.....	360	7.16	4.27	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS.....	220	4.33	na	na
SERVICE OCCUPATIONS, TOTAL.....	90	1.95	na	na
Janitors, Porters, and Cleaners.	70	1.46	14.28	78
All Other Service Workers.....	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,910	58.28	na	na
Supervisors, Nonworking.....	110	2.27	19.87	50
Bindery Workers, Assembly.....	260	5.18	15.76	50
Bookbinders, Machine.....	120	2.43	35.77	44
Camera Operators, Printing.....	40	.80	25.82	67
Cutters, Machine.....	50	.96	32.23	50
Letter Press Operators-Sheet, Roll, or Web Fed.....	150	3.07	37.69	44
Mechanics, Maintenance.....	70	1.38	24.10	44
Offset Lithographic Press Operators-Sheet, Roll, or Web Fed.....	710	14.31	12.84	83
Pasteup Workers.....	100	1.96	18.60	61
Platemakers.....	50	1.06	14.94	89
Press Assistants and Feeders....	110	2.15	16.33	44
Proofreaders, Composed Copy.....	70	1.34	13.29	94
Strippers.....	70	1.38	19.45	67
All Other Bindery Workers.....	290	5.84	na	na

Table 34 (Continued) Manifold Business Forms

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Skilled Craftsmen and Kindred Workers	170	3.37	na	na
All Other Operatives and Semi-skilled Workers	350	6.94	na	na
All Other Laborers and Unskilled Workers	190	3.85	na	na
CLERICAL OCCUPATIONS, TOTAL	1,240	24.47	na	na
Clerical Supervisors, Office or Plant	50	.90	36.99	44
Accounting Clerks	80	1.58	17.40	61
Bookkeepers, Hand	50	1.04	25.62	56
Bookkeeping and/or Billing Machine Operators	40	.72	46.58	22
Customer Service Representatives, Printing and Publishing	50	1.06	10.53	39
General Clerks, Office	60	1.10	25.04	50
Keypunch Operators	70	1.42	17.44	33
Order Clerks	120	2.39	21.09	44
Production Clerks and/or Coordinators	70	1.32	38.39	56
Secretaries	100	1.94	12.19	83
Shipping and/or Receiving Clerks	70	1.44	15.55	78
Shipping Packers	80	1.54	20.00	56
Stock Clerks-Stockroom, Warehouse, or Storage Yard	40	.84	41.00	39
Typists	70	1.36	20.69	72
All Other Office Machine Operators	90	1.83	na	na
All Other Office Clerical Workers	160	3.17	na	na
All Other Plant Clerical Workers	40	.78	na	na
SALES OCCUPATIONS, TOTAL	190	3.81	na	na
Sales Representatives, Agents, and/or Associates	180	3.59	30.61	50
All Other Sales Workers	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 34 (Continued) Manifold Business Forms

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Proofreaders, Composed Copy	94
Platemakers	89
Offset Lithographic Press Operators-Sheet, Roll, or Web Fed	83
Secretaries	83

SIC 28
CHEMICALS AND ALLIED PRODUCTS

The Chemical and Allied Products Industry is a prime contributor to the health of the Texas economy. In 1980, employment exceeded 83,000--a 12 percent gain over a three-year span. Texas plays an important role in chemical production. Most ingredients used in the chemical products are either petroleum-based compounds or petrochemicals which are turned out in Texas, the leading state in oil and gas production. Paints, Drugs, and Miscellaneous Chemical Products are also manufactured in huge volumes.

Industrial Organic Chemicals (SIC 286) is the largest segment within the Chemicals and Allied Products Industry with estimated employment of 40,350--an increase of 6,820 workers since mid-1977. The Maintenance and Production category claimed the greatest proportion of the industry's total employment with Chemical Operators being the dominant occupational group.

Most of the sizable, chemical-producing plants are located along the Gulf Coast port areas (Houston, Galveston, Beaumont, and Corpus Christi) where economical shipping is available.

A high percentage of the total employment was concentrated in firms that manufacture organic materials for textiles. Therefore, the supply and demand factors on raw materials will have an influence on total employment over the coming decade.

Employment is anticipated to moderately advance through the mid-1980's.

Table 35
SIC 285
Paints, Varnishes, Lacquers, Enamels, and Allied Products

This group includes establishments primarily engaged in manufacturing paints (in paste and ready mixed form); varnishes; lacquers; enamels and shellac; putties, wood fillers, and sealers; paint and varnish removers; paint brush cleaners; and allied paint products.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	4,060	100.00	na	na
MANAGERS AND OFFICERS	400	9.77	7.88	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	280	6.94	na	na
Chemists	100	2.53	16.77	61
Physical Science Technicians	40	.93	5.91	17
All Other Science Technicians	40	.94	na	na
All Other Professional and Technical Workers	100	2.53	na	na
SERVICE OCCUPATIONS, TOTAL	50	1.35	na	na
Janitors, Porters, and Cleaners	40	1.03	26.23	52
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	1,990	49.26	na	na
Supervisors, Nonworking	80	2.04	17.20	43
Delivery and Route Workers	40	1.03	39.54	26
Grinder Operators-Chemicals, Plastics, Rubber, and Related Materials	110	2.70	27.82	43
Industrial Truck Operators	140	3.49	10.89	57
Maintenance Repairers, General Utility	60	1.47	19.83	43
Mixers and/or Blenders, Chemicals and Chemical Products	330	8.09	17.10	83
Order Fillers	150	3.71	14.85	52

Table 35 (Continued) Paints, Varnishes, Lacquers, Enamels, and Allied Products

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Production Packagers, Hand or Machine	280	6.91	18.21	65
Testers	30	.81	33.52	26
Tinters	70	1.82	17.31	65
Truck Drivers	90	2.21	23.74	57
All Other Skilled Craftsmen and Kindred Workers	80	1.99	na	na
All Other Operatives and Semi-skilled Workers	340	8.37	na	na
All Other Laborers and Unskilled Workers	190	4.58	na	na
CLERICAL OCCUPATIONS, TOTAL	840	20.55	na	na
Accounting Clerks	90	2.21	17.83	57
General Clerks, Office	100	2.41	19.97	52
Keypunch Operators	50	1.18	17.43	35
Order Clerks	90	2.21	14.47	57
Secretaries	80	1.84	13.15	70
Shipping and/or Receiving Clerks	80	1.99	19.27	61
Shipping Packers	50	1.27	29.56	35
Stock Clerks-Stockroom, Warehouse, or Storage Yard	80	1.86	35.64	39
All Other Office Machine Operators	30	.84	na	na
All Other Clerical Workers	190	4.70	na	na
SALES OCCUPATIONS, TOTAL	500	12.13	na	na
Sales Clerks	110	2.65	24.36	35
Sales Representatives, Agents, and/or Associates	390	9.47	12.99	78

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Mixers and/or Blenders, Chemicals and Chemical Products	83
Sales Representatives, Agents, and/or Associates	78
Secretaries	70
Production Packagers, Hand or Machine	65
Tinters	65

Table 36
SIC 286
Industrial Organic Chemicals

This group includes establishments primarily engaged in manufacturing industrial organic chemicals. Important products in this group include: non-cyclic organic chemicals; solvents; polyhydric alcohols; synthetic perfume and flavoring materials; rubber processing chemicals; cyclic and acyclic plasticizers; synthetic tanning agents; chemical warfare gases; esters, amines, etc. of polyhydric alcohols and fatty and other acids; cyclic crudes and intermediates; cyclic dyes and organic pigments; and natural gum and wood chemicals.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	40,350	100.00	na	na
MANAGERS AND OFFICERS	2,940	7.28	5.02	95
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	7,320	18.12	na	na
Accountants and Auditors	310	.77	15.34	80
Chemical Engineers	1,590	3.93	5.01	83
Chemists	600	1.48	17.83	88
Civil Engineers	50	.11	23.53	27
Computer Programmers	100	.24	22.49	39
Drafters	170	.42	18.14	41
Electrical and Electronic Engineers	240	.58	9.39	56
Electrical and Electronic Technicians	80	.20	24.89	24
Industrial Engineers	130	.31	19.27	29
Mathematical Scientists	40	.08	40.30	12
Mechanical Engineers	660	1.64	5.16	71
Nurses, Professional	60	.13	8.45	59
Personnel and Labor Relations Specialists	160	.40	10.34	71
Physical Science Technicians	820	2.03	19.49	39
Purchasing Agents and/or Buyers	170	.42	9.66	80
Safety Engineers	90	.21	9.31	56
Systems Analysts, Electronic Data Processing	110	.27	21.35	32
All Other Engineering Technicians	810	2.02	na	na
All Other Engineers	60	.16	na	na
All Other Natural and Mathematical Scientists	50	.13	na	na

Table 36 (Continued) Industrial Organic Chemicals

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Science Technicians.....	430	1.06	na	na
All Other Professional Workers....	300	.75	na	na
All Other Technical Workers.....	290	.71	na	na
SERVICE OCCUPATIONS, TOTAL.....	390	.98	na	na
Guards and Doorkeepers.....	160	.40	12.28	29
Janitors, Porters, and Cleaners...	200	.50	29.75	32
All Other Service Workers.....	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.....	25,720	63.75	na	na
Supervisors, Nonworking.....	3,400	8.41	4.21	85
Boilermakers.....	150	.35	32.45	15
Carpenters.....	150	.37	19.68	22
Chemical Operator Helpers.....	1,420	3.52	21.94	29
Chemical Operators-A.....	7,410	18.36	6.48	83
Chemical Operators-B.....	840	2.07	22.74	29
Chief Operators.....	410	1.00	20.84	22
Crane, Derrick, and Hoist Operators.....	100	.24	28.92	29
Electricians.....	570	1.40	17.14	44
Helpers, Trades.....	60	.15	48.92	7
Industrial Truck Operators.....	90	.21	35.60	10
Inspectors.....	30	.07	35.83	12
Instrument Repairers.....	1,170	2.90	11.10	61
Loaders, Tank Cars and/or Trucks..	750	1.84	22.44	27
Machinists.....	480	1.18	18.13	24
Maintenance Repairers, General Utility.....	360	.89	41.01	29
Mechanics, Automotive.....	40	.10	21.76	12
Mechanics, Maintenance.....	950	2.36	22.62	37
Millwrights.....	490	1.20	39.01	10
Painters, Maintenance.....	130	.31	17.64	24
Plumbers and/or Pipefitters.....	1,160	2.88	15.46	29
Refrigeration Mechanics and/or Air Conditioning Mechanics.....	40	.10	20.52	17
Riggers.....	340	.84	26.31	20
Sheet Metal Workers.....	110	.27	17.76	17
Stationary Boiler Firers.....	30	.07	49.48	7
Stationary Engineers.....	300	.75	46.06	12
Testers.....	270	.67	28.82	17
Truck Drivers.....	150	.38	46.13	32
Waste Treatment Plant Operators, Chemicals.....	60	.14	45.59	7
Welders and/or Flamecutters.....	300	.73	13.27	29

Table 36 (Continued) Industrial Organic Chemicals

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Mechanics and Repairers.	530	1.32	na	na
All Other Skilled Craftsmen and Kindred Workers.....	1,210	3.01	na	na
All Other Operatives and Semi-skilled Workers.....	1,670	4.15	na	na
All Other Laborers and Unskilled Workers.....	550	1.37	na	na
CLERICAL OCCUPATIONS, TOTAL.....	3,620	8.99	na	na
Clerical Supervisors, Office or Plant.....	100	.23	13.40	39
Accounting Clerks.....	440	1.08	13.62	73
Computer Operators.....	70	.18	13.83	44
General Clerks, Office.....	330	.81	20.48	39
Keypunch Operators.....	110	.26	10.56	59
Order Clerks.....	150	.36	15.90	37
Payroll and/or Timekeeping Clerks.	70	.18	16.33	56
Personnel Clerks.....	80	.18	12.18	54
Procurement Clerks.....	70	.18	18.78	41
Production Clerks and/or Coordinators.....	240	.60	15.63	44
Secretaries.....	710	1.76	11.41	90
Shipping and/or Receiving Clerks..	100	.24	18.54	32
Shipping Packers.....	80	.20	37.63	10
Stenographers.....	250	.62	13.95	29
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	280	.70	14.09	44
Switchboard Operator-Receptionists	40	.09	20.38	46
Typists.....	200	.50	17.89	39
All Other Office Machine Operators	50	.13	na	na
All Other Office Clerical Workers.	190	.47	na	na
All Other Plant Clerical Workers..	60	.15	na	na
SALES OCCUPATIONS, TOTAL.....	360	.88	na	na
Sales Representatives, Agents, and/or Associates.....	360	.88	39.40	20

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 36 (Continued) Industrial Organic Chemicals

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	95
Secretaries	90
Chemists	88
Supervisors, Nonworking	85
Chemical Engineers	83
Chemical Operators-A	83

Table 37
SIC 289
Miscellaneous Chemical Products

This group includes establishments primarily engaged in manufacturing industrial and household adhesives and sealants; explosives; printing ink; carbon black; and chemicals and chemical preparations, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	7,210	100.00	na	na
MANAGERS AND OFFICERS.....	830	11.53	8.68	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	770	10.65	na	na
Accountants and Auditors.....	50	.74	11.87	35
Chemical Engineers.....	110	1.52	14.31	24
Chemists.....	140	1.94	12.58	51
Mechanical Engineers.....	50	.70	24.55	24
Physical Science Technicians....	80	1.06	20.68	6
Purchasing Agents and/or Buyers.	40	.52	12.32	31
All Other Engineers.....	60	.89	na	na
All Other Science Technicians...	50	.64	na	na
All Other Professional Workers..	80	1.07	na	na
All Other Technical Workers.....	110	1.54	na	na
SERVICE OCCUPATIONS, TOTAL.....	90	1.33	na	na
Janitors, Porters, and Cleaners.	80	1.15	25.55	43
All Other Service Workers.....	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,960	54.80	na	na
Supervisors, Nonworking.....	360	4.97	8.36	55
Carbon Black Makers.....	290	4.00	14.73	20
Chemical Operator Helpers.....	80	1.15	35.64	14
Chemical Operators-A.....	280	3.89	7.35	14
Chemical Operators-B.....	120	1.67	28.74	12
Delivery and Route Workers.....	60	.79	36.60	14
Electricians.....	70	1.02	11.37	29

Table 37 (Continued) Miscellaneous Chemical Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Grinder Operators-Chemicals, Plastics, Rubber, and Related Materials	100	1.38	44.15	14
Industrial Truck Operators	90	1.20	27.96	33
Inspectors	40	.52	11.74	18
Instrument Repairers	50	.73	13.31	18
Loaders, Tank Cars and/or Trucks	60	.76	11.89	10
Maintenance Repairers, General Utility	90	1.26	18.82	31
Mechanics, Maintenance	130	1.80	10.44	39
Mixers and/or Blenders, Chemicals and Chemical Products	320	4.38	30.69	35
Plumbers and/or Pipefitters	40	.59	5.99	6
Production Packagers, Hand or Machine	330	4.53	16.95	41
Tinters	50	.65	45.62	10
Truck Drivers	150	2.02	35.07	31
Welders and/or Flamecutters	110	1.49	12.49	24
All Other Skilled Craftsmen and Kindred Workers	90	1.29	na	na
All Other Operatives and Semi-skilled Workers	580	8.06	na	na
All Other Laborers and Unskilled Workers	470	6.55	na	na
CLERICAL OCCUPATIONS, TOTAL	1,080	15.03	na	na
Clerical Supervisors, Office or Plant	50	.69	10.04	22
Accounting Clerks	120	1.65	19.33	41
General Clerks, Office	210	2.92	16.95	53
Order Clerks	60	.79	11.13	37
Secretaries	260	3.64	14.03	55
Shipping and/or Receiving Clerks	50	.73	20.04	31
Stock Clerks-Stockroom, Warehouse, or Storage Yard	40	.54	24.66	27
Typists	40	.56	13.12	18
All Other Office Clerical Workers	190	2.68	na	na
All Other Plant Clerical Workers	60	.80	na	na
SALES OCCUPATIONS, TOTAL	480	6.66	na	na
Sales Representatives, Agents, and/or Associates	480	6.62	21.48	43
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 37 (Continued) Miscellaneous Chemical Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Secretaries	55
Supervisors, Nonworking	55
General Clerks, Office	53
Chemists	51

SIC 29
PETROLEUM REFINING AND RELATED INDUSTRIES

Texas ranks first as a refining state. The approximately 54 plants located in Texas yield over 27 percent of the United States total production of crude oil. Because the industry is so heavily automated, the refineries employ relatively few workers. In Petroleum Refining (SIC 291) alone, employment is estimated at 39,000 (May 1980)--a decrease of 2,000 over the 1977 period. The total industry employment reported is 42,300 of which 92 percent is comprised by the Petroleum Refining segment.

The Related Industries segment includes the making of asphalts, paving and roofing products, and lubricants. Since most of the refinery output is shipped by barge, and raw crude is imported by tanker, the major refineries are clustered around the seaports of Beaumont, Port Arthur, Corpus Christi, and Houston.

Petroleum Refining is the significant publishable segment and employment is not anticipated to change to any degree through the mid-1980's. Refinery output is dependent on world conditions, but automated/computerized plants, increased refining capacity, and improved refining techniques should make it possible for the industry to boost production without adding unneeded employees. Most jobs will be for Operators, Maintenance Workers, Administrators, and Technicians.

Table 38
SIC 291
Petroleum Refining

This group includes establishments primarily engaged in producing gasoline, kerosene distillate fuel oils, residual fuel oils, lubricants, and other products from crude petroleum and its fractionation products through straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking, or other processes.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	39,160	100.00	na	na
MANAGERS AND OFFICERS	2,370	6.06	20.64	94
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	5,080	12.97	na	na
Accountants and Auditors	440	1.13	32.94	74
Chemical Engineers	690	1.76	9.92	81
Chemists	280	.72	19.10	77
Civil Engineers	60	.16	26.02	26
Computer Programmers	100	.25	29.74	32
Drafters	230	.59	13.96	68
Electrical and Electronic Engineers	120	.29	17.42	61
Electrical and Electronic Technicians	50	.12	35.16	23
Geologists and Geophysicists	180	.45	42.82	13
Industrial Engineers	70	.17	34.10	35
Lawyers	40	.09	44.01	13
Mechanical Engineers	520	1.33	11.28	81
Nurses, Professional	60	.14	12.82	48
Personnel and Labor Relations Specialists	190	.48	14.93	77
Petroleum Engineers	160	.41	35.49	23
Safety Engineers	100	.25	13.56	71
Science Technicians	420	1.08	19.86	35
Systems Analysts, Electronic Data Processing	110	.27	32.83	42
All Other Engineering Technicians	370	.93	na	na
All Other Engineers	240	.60	na	na
All Other Professional Workers	410	1.04	na	na
All Other Technical Workers	240	.60	na	na

Table 38 (Continued) Petroleum Refining

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SERVICE OCCUPATIONS, TOTAL.....	440	1.13	na	na
Guards and Doorkeepers.....	220	.56	15.91	48
Janitors, Porters, and Cleaners.	130	.33	40.43	45
All Other Service Workers.....	90	.24	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	26,670	68.12	na	na
Supervisors, Nonworking.....	2,750	7.03	13.20	84
Asbestos and Insulation Workers.	220	.55	12.62	42
Boilermakers.....	600	1.54	18.39	39
Carpenters.....	330	.83	13.40	52
Chemical Operators-A.....	760	1.94	36.55	29
Chief Operators.....	450	1.15	31.81	32
Compounders.....	290	.73	26.63	39
Control Panel Operators, Petroleum.....	610	1.55	22.72	39
Crane, Derrick, and Hoist Operators.....	130	.32	21.38	39
Dispatchers, Refinery.....	120	.30	23.08	26
Electricians.....	670	1.70	9.47	71
Firers, Petroleum Refining.....	240	.61	47.11	10
Gagers.....	330	.83	19.84	42
Heavy Equipment Operators.....	190	.47	20.52	26
Helpers, Trades.....	1,060	2.70	15.96	45
Industrial Truck Operators.....	190	.49	22.85	26
Inspectors.....	30	.08	16.49	32
Instrument Fitters.....	140	.36	35.71	29
Instrument Repairers.....	820	2.10	22.51	81
Loaders, Tank Cars and/or Trucks	310	.79	19.32	68
Machinists.....	1,060	2.69	14.66	58
Mechanics, Automotive.....	100	.26	11.89	42
Mechanics, Maintenance.....	750	1.92	26.78	55
Millwrights.....	70	.17	21.64	13
Order Fillers.....	70	.16	31.24	10
Painters, Maintenance.....	320	.81	23.34	52
Plumbers and/or Pipefitters.....	1,560	3.99	14.67	65
Production Packagers, Hand or Machine.....	340	.87	28.65	19
Pump Operator Helpers.....	350	.89	29.58	26
Pump Operators.....	350	.88	19.47	35
Refinery Operator Helpers, Petroleum.....	2,300	5.87	13.24	55
Refinery Operators, Petroleum...	3,630	9.28	14.45	74
Riggers.....	70	.17	28.92	16

Table 38 (Continued) Petroleum Refining

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Samplers and/or Test Preparers...	40	.11	22.65	23
Stationary Boiler Firers.....	120	.30	22.50	26
Stationary Engineers.....	250	.64	24.17	26
Still Operators, Asphalt.....	50	.12	39.84	10
Testers.....	800	2.04	9.67	68
Treaters.....	90	.23	34.27	19
Welders and/or Flamecutters.....	580	1.48	12.99	71
All Other Mechanics and Repairers	50	.12	na	na
All Other Skilled Craftsmen and Kindred Workers.....	260	.67	na	na
All Other Operatives and Semi-skilled Workers.....	2,320	5.93	na	na
All Other Laborers and Unskilled Workers.....	900	2.29	na	na
CLERICAL OCCUPATIONS, TOTAL.....	4,470	11.39	na	na
Clerical Supervisors, Office or Plant.....	80	.19	30.30	42
Bookkeeping and/or Billing Machine Operators.....	30	.08	28.90	23
Computer Operators.....	90	.21	25.15	45
File Clerks.....	30	.07	27.72	23
General Clerks, Office.....	1,160	2.95	29.17	52
Keypunch Operators.....	210	.53	41.40	58
Payroll and/or Timekeeping Clerks	70	.17	37.44	61
Personnel Clerks.....	80	.20	15.45	58
Procurement Clerks.....	80	.19	17.75	45
Production Clerks and/or Coordinators.....	40	.10	14.78	39
Secretaries.....	730	1.87	28.61	87
Shipping and/or Receiving Clerks.	90	.23	14.74	35
Stenographers.....	250	.64	32.21	42
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	210	.52	16.05	68
Switchboard Operators.....	50	.13	13.23	52
Typists.....	90	.23	20.05	35
All Other Office Machine Operators	130	.32	na	na
All Other Office Clerical Workers	940	2.41	na	na
All Other Plant Clerical Workers.	110	.28	na	na
SALES OCCUPATIONS, TOTAL.....	130	.33	na	na
Sales Representatives, Agents, and/or Associates.....	120	.30	37.54	19
All Other Sales Workers.....	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 38 (Continued) Petroleum Refining

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	94
Secretaries	87
Supervisors, Nonworking	84
Chemical Engineers	81
Instrument Repairers	81
Mechanical Engineers	81

SIC 30
RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS

The Rubber and Miscellaneous Plastics Products Industry reported approximately 30,000 employees as of June 1980. This was a 13 percent increase over the 1977 period. Nearly all of the total industry employment is constituted in two industrial groups--Fabricated Rubber Products (13 percent) and Miscellaneous Plastics Products (74 percent).

The Miscellaneous Plastics Products segment registered a steady 11 percent upturn over the three-year period. The majority of the occupations in this industry are found under Production, Maintenance, Construction, Repair, Material Handling, and Power Plant Occupations, Total, with Machine Operators being the most dominant.

The rate of long-term growth in Miscellaneous Plastics Products depends on the cost and availability of petrochemical feedstocks, such as ethylene, butadiene, and benzene. It appears that feedstocks will be available for future use, but presumably at a higher price due to the rising consumption of plastics in automotive, residential, and heavy construction. Even modest fluctuations, in these key areas, can have a tremendous impact on employment practices.

Table 39
SIC 306
Fabricated Rubber Products, Not Elsewhere Classified

This group includes establishments primarily engaged in manufacturing industrial and mechanical rubber goods, rubberized fabrics and vulcanized rubber clothing, and miscellaneous rubber specialties and sundries.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	3,790	100.00	na	na
MANAGERS AND OFFICERS	510	13.66	4.28	93
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	280	7.47	na	na
Accountants and Auditors	40	1.17	13.17	36
All Other Professional and Technical Workers	240	6.30	na	na
SERVICE OCCUPATIONS, TOTAL	90	2.39	na	na
Janitors, Porters, and Cleaners	70	1.80	16.97	57
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,010	52.95	na	na
Supervisors, Nonworking	100	2.52	19.62	57
Compression and/or Injection-Molding Machine Operators, Plastics	120	3.22	24.75	29
Die Cutters and/or Clicking Machine Operators	40	.98	35.14	21
Extruder Operators, Plastics or Rubber	30	.79	26.81	43
Inspectors	50	1.25	49.98	21
Machinists	50	1.33	18.02	50
Maintenance Repairers, General Utility	80	2.02	15.47	50
Mixers and/or Blenders, Chemicals and Chemical Products	60	1.46	24.69	50
Press Tenders, Rubber Goods	200	5.40	41.04	43

Table 39 (Continued) Fabricated Rubber Products, Not Elsewhere Classified

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Rubber Goods Cutter-Finishers.....	140	3.67	24.77	50
Rubber Mill Operators.....	50	1.38	38.14	50
All Other Skilled Craftsmen and Kindred Workers.....	80	2.05	na	na
All Other Operatives and Semi-skilled Workers.....	880	23.37	na	na
All Other Laborers and Unskilled Workers.....	130	3.51	na	na
CLERICAL OCCUPATIONS, TOTAL.....	570	14.78	na	na
Accounting Clerks.....	50	1.27	3.79	21
General Clerks, Office.....	100	2.63	5.67	43
Production Clerks and/or Coordinators.....	70	1.73	7.86	43
Secretaries.....	140	3.69	4.17	71
All Other Clerical Workers.....	210	5.45	na	na
SALES OCCUPATIONS, TOTAL.....	330	8.75	na	na
Sales Representatives, Agents, and/or Associates.....	330	8.75	10.87	71

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	93
Sales Representatives, Agents, and/or Associates	71
Secretaries	71
Janitors, Porters, and Cleaners	57
Supervisors, Nonworking	57

Table 40
SIC 307
Miscellaneous Plastics Products

This group includes establishments primarily engaged in molding primary plastics for the trade, and fabricating miscellaneous finished plastics products such as plastics films, sheets, and rods; nontextile monofilaments; regenerated cellulose products; and vulcanized fiber from purchased or produced resins. Also included are establishments primarily engaged in compounding purchased resins.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	22,150	100.00	na	na
MANAGERS AND OFFICERS	1,410	6.36	15.01	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	770	3.49	na	na
Accountants and Auditors	130	.57	35.75	50
Chemists	90	.41	27.11	13
Drafters	90	.38	32.75	27
Industrial Engineers	30	.13	19.52	12
Mechanical Engineers	60	.26	44.66	24
Personnel and Labor Relations Specialists	50	.23	9.25	28
Purchasing Agents and/or Buyers	80	.37	20.62	45
Science Technicians	70	.32	20.10	12
All Other Engineering Technicians	40	.19	na	na
All Other Engineers	50	.24	na	na
All Other Professional and Technical Workers	80	.35	na	na
SERVICE OCCUPATIONS, TOTAL	260	1.18	na	na
Guards and Doorkeepers	30	.15	9.55	7
Janitors, Porters, and Cleaners	220	.99	32.60	50
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	16,680	75.31	na	na
Supervisors, Nonworking	700	3.17	17.66	62

Table 40 (Continued) Miscellaneous Plastics Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Compression and/or Injection-Molding Machine Operators, Plastics	2,050	9.24	15.30	48
Delivery and Route Workers	70	.32	25.53	7
Drier Operators-Chemicals, Plastic Resins, and Rubber	60	.27	23.01	7
Electricians	110	.51	14.58	22
Extruder Operators, Plastics or Rubber	970	4.35	19.16	40
Finishers, Machine	60	.24	24.41	3
Heat Sealers	210	.94	34.50	5
Industrial Truck Operators	140	.63	14.61	22
Inspectors	870	3.91	16.40	55
Maintenance Repairers, General Utility	580	2.59	23.17	54
Mixers and/or Blenders, Chemicals and Chemical Products	310	1.39	46.15	28
Pilling Machine Operators	70	.31	41.42	5
Press Operators and/or Plate Printers	60	.28	29.67	8
Production Packagers, Hand or Machine	710	3.19	24.35	20
Tool and Die Makers	200	.91	44.42	27
Vacuum Plastic Forming Machine Operators	140	.61	42.44	9
Welders and/or Flamecutters	30	.14	35.39	8
All Other Skilled Craftsmen and Kindred Workers	1,270	5.75	na	na
All Other Operatives and Semi-skilled Workers	6,570	29.68	na	na
All Other Laborers and Unskilled Workers	1,500	6.77	na	na
CLERICAL OCCUPATIONS, TOTAL	2,620	11.85	na	na
Clerical Supervisors, Office or Plant	80	.37	26.65	20
Accounting Clerks	130	.59	26.38	41
Bookkeeping and/or Billing Machine Operators	40	.16	42.42	8
General Clerks, Office	250	1.11	42.88	42
Order Clerks	80	.37	25.65	26
Payroll and/or Timekeeping Clerks	80	.34	31.44	39
Personnel Clerks	40	.19	9.93	28
Production Clerks and/or Coordinators	110	.49	8.70	28

Table 40 (Continued) Miscellaneous Plastics Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Secretaries	530	2.41	38.42	57
Shipping and/or Receiving Clerks.	270	1.21	29.43	65
Shipping Packers	470	2.13	18.61	38
Stock Clerks-Stockroom, Warehouse, or Storage Yard	170	.78	39.26	33
Switchboard Operator-Receptionists	60	.28	9.28	40
Typists	60	.25	23.17	13
All Other Office Machine Operators	50	.21	na	na
All Other Office Clerical Workers	160	.72	na	na
All Other Plant Clerical Workers.	40	.19	na	na
SALES OCCUPATIONS, TOTAL	410	1.81	na	na
Sales Representatives, Agents, and/or Associates	390	1.73	25.14	61
All Other Sales Workers	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Shipping and/or Receiving Clerks	65
Supervisors, Nonworking	62
Sales Representatives, Agents, and/or Associates	61
Secretaries	57

SIC 31
LEATHER AND LEATHER PRODUCTS

Employment in this industry is relatively small in comparison to other manufacturing industries. The availability of raw materials and a continuing demand for the main product, interstate as well as intrastate, lends special emphasis to the industry.

In May of 1980, the Leather and Leather Products Industry employed approximately 8,300 workers throughout Texas--a small 3 percent gain over the 1977 survey. Fifty-nine percent of the total industry employment is concentrated in Footwear, Except Rubber (SIC 314)--the only publishable segment. The upturn (14 percent) helped offset the downturn in other segments of the industry. Sewing and Stitching Machine Operators are the most dominant occupational groups appearing under the Footwear, Except Rubber segment.

The unceasing popularity of leather western goods is a major reason employment continues to climb. Although there are indications that employment is starting to level off, price stability and leather supplies are contributing factors.

The industry is expected to keep pace with moderate, but stable demand through the mid-1980's.

Table 41
SIC 314
Footwear, Except Rubber

This group includes establishments primarily engaged in manufacturing nonrubber footwear such as house slippers; men's and women's footwear designed primarily for dress, street, and work; and footwear, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	4,960	100.00	na	na
MANAGERS AND OFFICERS	90	1.84	34.58	83
PROFESSIONAL AND TECHNICAL OCCUPATIONS	60	1.11	na	na
SERVICE OCCUPATIONS, TOTAL	70	1.38	na	na
Janitors, Porters, and Cleaners.	50	.96	16.15	67
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,970	80.16	na	na
Supervisors, Nonworking	150	3.02	5.61	67
Assemblers	120	2.48	15.16	58
Assemblers For Puller-Over, Hand or Machine	40	.76	18.63	42
Buffers, Shoe Parts	50	.90	7.62	58
Cementers, Machine Joiner	40	.76	25.94	33
Cementers, Pasters, Backers, or Fitters-Hand	90	1.81	31.61	58
Die Cutters and/or Clicking Machine Operators	150	3.10	19.12	75
Fasteners, Machine	30	.68	43.75	42
Floor Workers, Footwear	70	1.41	11.97	50
Gluers and/or Cementers, Hand	50	1.09	46.63	25
Heel Attachers	60	1.13	9.54	58
Inkers, Hand or Machine	40	.74	18.95	50
Inspectors	110	2.20	14.23	67
Lasters, Hand	110	2.22	23.68	67
Production Packagers, Hand or Machine	90	1.77	19.70	67

Table 41 (Continued) Footwear, Except Rubber

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Repairers, Finish	130	2.68	29.43	50
Sewing Machine Operators, Regular Equipment--Nongarment	400	8.07	23.15	42
Sewing Machine Operators, Special and/or Automatic Equipment--Nongarment	140	2.74	35.90	25
Shank-Piece Tackers	40	.78	15.77	42
Shoe Parts Sewers, Hand	170	3.51	31.38	42
Skivers	60	1.15	21.63	75
Sorters, Leather	40	.80	13.37	33
Stitchers, Special Machine	90	1.83	15.62	50
Stitchers, Standard Machine	410	8.21	24.97	92
Stitchers, Utility	80	1.57	24.86	58
Toe Lasters	40	.84	14.90	50
Treers	30	.60	48.46	33
Trimmers, Machine	90	1.89	24.28	58
All Other Skilled Craftsmen and Kindred Workers	220	4.39	na	na
All Other Operatives and Semi-skilled Workers	660	13.31	na	na
All Other Laborers and Unskilled Workers	170	3.46	na	na
CLERICAL OCCUPATIONS, TOTAL	540	10.94	na	na
General Clerks, Office	30	.62	45.44	42
Order Clerks	40	.70	8.53	50
Secretaries	40	.78	29.40	67
Shipping and/or Receiving Clerks	50	.98	24.61	67
Shipping Packers	60	1.21	20.24	50
All Other Office Clerical Workers	240	4.92	na	na
All Other Plant Clerical Workers	80	1.70	na	na
SALES OCCUPATIONS, TOTAL	230	4.57	na	na
Sales Clerks	60	1.15	40.42	42
Sales Representatives, Agents, and/or Associates	170	3.41	46.70	50

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 41 (Continued) Footwear, Except Rubber

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Stitchers, Standard Machine	92
Managers and Officers	83
Die Cutters and/or Clicking Machine Operators	75
Skivers	75

SIC 32
STONE, CLAY, GLASS, AND CONCRETE PRODUCTS

Stone, Clay, Glass, and Concrete Products are made in Texas largely for the construction industry. Major outputs include cement and concrete products, brick, tile, plaster, building stone, and flat glass. Most of the plants are close to transportation facilities and are near earth material sources they process. This industry's total employment is estimated at approximately 44,400 as of May 1980, a 17 percent hike from 1977.

Concrete, Gypsum, and Plaster Products (SIC 327), a major segment of this industry, comprised 43 percent of the total employment. Within this segment, the Ready-Mixed Concrete division led employment with an estimated 10,000 workers. Truck Drivers, appearing under the Production and Maintenance category, is the most notable occupation with the bulk of these workers employed in the Ready-Mixed Concrete division.

The construction industry is one of the greatest users of stone, clay, and glass products; including ready-mixed concrete, brick, and tile. Heavy construction rather than residential construction is the major consumer and has not suffered the economic downturn that has plagued residential construction.

Employment is expected to moderately increase through the mid-1980's.

Table 42
SIC 324
Cement, Hydraulic

This group includes establishments primarily engaged in manufacturing hydraulic cement, including portland, natural, masonry, and pozzolan cements.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	3,220	100.00	na	na
MANAGERS AND OFFICERS	120	3.81	8.15	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	220	6.77	na	na
Chemists	70	2.09	9.18	92
Science Technicians	60	1.96	14.57	67
All Other Professional and Technical Workers	90	2.71	na	na
SERVICE OCCUPATIONS	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,580	80.04	na	na
Supervisors, Nonworking	170	5.24	8.74	92
Crane, Derrick, and Hoist Operators	70	2.15	20.49	58
Electricians	120	3.68	4.96	92
Furnace, Kiln, Drier, or Oven Operator/Tenders	60	1.93	14.34	50
Heavy Equipment Operators	70	2.27	17.61	67
Helpers, Trades	50	1.62	35.18	25
Industrial Truck Operators	130	3.99	12.28	67
Maintenance Repairers, General Utility	300	9.43	16.00	75
Mechanics, Maintenance	90	2.74	30.44	25
Mill and/or Grinder Operators, Minerals	60	1.90	18.43	58
Oilers	90	2.87	14.12	58
Panelboard Operators and/or Grinding Mill Panelboard Operators	40	1.15	25.93	42

Table 42 (Continued) Cement, Hydraulic

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Truck Drivers	150	4.65	37.44	58
Welders and/or Flamecutters	60	1.81	15.98	50
All Other Mechanics and Repairers	50	1.43	na	na
All Other Skilled Craftsmen and Kindred Workers	240	7.36	na	na
All Other Operatives and Semi-skilled Workers	310	9.76	na	na
All Other Laborers and Unskilled Workers	520	16.06	na	na
CLERICAL OCCUPATIONS	230	7.20	na	na
SALES OCCUPATIONS, TOTAL	50	1.43	na	na
Sales Representatives, Agents, and/or Associates	40	1.21	15.01	67
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Chemists	92
Electricians	92
Supervisors, Nonworking	92
Maintenance Repairers, General Utility	75

Table 43
SIC 327
Concrete, Gypsum, and Plaster Products

This group includes establishments primarily engaged in manufacturing concrete products from a combination of cement and aggregate; ready-mixed concrete; lime; and gypsum products.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	19,180	100.00	na	na
MANAGERS AND OFFICERS	1,380	7.22	5.87	92
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	430	2.26	na	na
Accountants and Auditors	120	.59	16.23	26
Civil Engineers	30	.17	24.25	9
Drafters	90	.46	15.88	12
Industrial Engineers	30	.16	21.40	12
Purchasing Agents and/or Buyers	40	.22	13.33	21
All Other Engineers	30	.18	na	na
All Other Professional Workers	50	.24	na	na
All Other Technical Workers	40	.21	na	na
SERVICE OCCUPATIONS, TOTAL	270	1.43	na	na
Guards and Doorkeepers	90	.49	35.01	11
Janitors, Porters, and Cleaners	170	.87	26.60	29
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	15,020	78.33	na	na
Supervisors, Nonworking	580	2.99	8.29	51
Batch Plant Operators	560	2.92	8.66	65
Blockmaking Machine Operators	150	.80	33.55	10
Cage Makers, Hand or Machine	160	.82	24.36	11
Carpenters	80	.42	21.56	13
Concrete-Pipe Makers	220	1.12	27.94	11
Concrete Rubbers	170	.90	23.10	14
Concrete-Stone Fabricators	680	3.55	32.06	11

Table 43 (Continued) Concrete, Gypsum, and Plaster Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Concrete-Stone Finishers	180	.95	34.48	10
Conveyor Operators or Tenders	120	.63	26.33	14
Crane, Derrick, and Hoist Operators	180	.91	16.31	21
Delivery and Route Workers	330	1.72	26.81	17
Electricians	40	.21	17.40	12
Engineering Equipment Mechanics	50	.25	30.37	5
Furnace, Kiln, Drier, or Oven Operator/Tenders	130	.66	26.72	9
Heavy Equipment Operators	270	1.42	21.14	33
Helpers, Trades	100	.52	23.03	13
Industrial Truck Operators	620	3.21	11.49	51
Inspectors	90	.44	18.11	16
Machinists	40	.18	44.54	5
Maintenance Repairers, General Utility	290	1.53	15.46	38
Mechanics, Automotive	550	2.87	16.50	49
Mechanics, Maintenance	200	1.03	16.78	20
Mixers-Stone, Clay, Glass, and Related Products	40	.18	34.04	5
Model and/or Mold Makers	60	.33	42.36	8
Oilers	40	.22	25.16	8
Order Fillers	80	.40	24.44	14
Painters, Maintenance	30	.15	34.75	7
Pipe Strippers	100	.53	29.20	9
Riggers	40	.21	37.10	3
Testers	40	.19	26.86	7
Truck Drivers	5,570	29.03	7.04	90
Welders and/or Flamecutters	260	1.35	18.43	21
All Other Mechanics and Repairers	70	.39	na	na
All Other Skilled Craftsmen and Kindred Workers	180	.94	na	na
All Other Operatives and Semi-skilled Workers	900	4.70	na	na
All Other Laborers and Unskilled Workers	1,820	9.50	na	na
CLERICAL OCCUPATIONS, TOTAL	1,590	8.20	na	na
Clerical Supervisors, Office or Plant	30	.15	24.03	12
Accounting Clerks	110	.57	18.36	26
Bookkeepers, Hand	250	1.30	15.41	39
Dispatchers-Vehicle, Service, or Work	300	1.53	12.43	44
General Clerks, Office	320	1.67	19.99	51
Order Clerks	40	.18	22.84	10
Payroll and/or Timekeeping Clerks	40	.18	17.73	17

Table 43 (Continued) Concrete, Gypsum, and Plaster Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Production Clerks and/or Coordinators	60	.29	16.32	17
Secretaries	180	.95	16.85	39
Stock Clerks-Stockroom, Warehouse, or Storage Yard	30	.16	17.89	15
All Other Office Clerical Workers.	180	.92	na	na
All Other Plant Clerical Workers..	50	.25	na	na
SALES OCCUPATIONS, TOTAL	490	2.56	na	na
Sales Clerks	30	.15	25.83	7
Sales Representatives, Agents, and/or Associates	460	2.40	9.05	52

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	92
Truck Drivers	90
Batch Plant Operators	65
Sales Representatives, Agents, and/or Associates	52
General Clerks, Office	51
Industrial Truck Operators	51
Supervisors, Nonworking	51

SIC 33
PRIMARY METAL INDUSTRIES

The Primary Metal Industries are chiefly involved in the production of steel, aluminum, magnesium, copper, lead, zinc, and in the making of pipe, wire, sheet metal, and foundry products. In April 1980, Texas' Primary Metal manufacturers employed approximately 49,000 workers, an increase of 20 percent over the 1977 period. This industry has developed in Texas largely because of regional demands for metal goods and because fuels, used in large quantity in most metal plants, are available in Texas. Although most of the ores are shipped into Texas, some iron ore is mined in East Texas and magnesium is extracted from Coastal seawaters.

Iron and Steel Foundries (SIC 332), the largest segment of Primary Metal Industries, accounted for 23 percent of the total employment--a 3 percent increase over the 1977 period. The three major divisions of Iron and Steel Foundries are: Gray Iron Foundries, Malleable Iron Foundries, and Steel Investment Foundries.

Most of the occupations in Iron and Steel Foundries appear under the heading: Production, Maintenance, Construction, Repair, Material Handling, and Power Plant Occupations, Total. Of these occupations, Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers represent the largest employment.

Foundries have continued to progress from a labor-intensive to a capital-intensive industry, and mechanization and automation have become realities. During the 1980's, the automobile and aircraft industries--chief users of the Primary Metal Industries--will have offsetting employment demands and the impact will be felt throughout the industry.

Table 44
SIC 332
Iron and Steel Foundries

This group includes establishments primarily engaged in manufacturing gray iron castings, including cast iron pressure and soil pipes and fittings; malleable iron castings; steel investment castings; and steel castings, not elsewhere classified. These establishments generally operate on a job or order basis, manufacturing castings for sale to others or for interplant transfer.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	11,140	100.00	na	na
MANAGERS AND OFFICERS	300	2.67	11.65	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	430	3.83	na	na
Accountants and Auditors	40	.37	11.20	52
Drafters	40	.35	24.90	28
Metallurgists and Metallurgical Engineers	30	.29	28.56	56
Purchasing Agents and/or Buyers	40	.34	23.48	60
All Other Engineers	70	.62	na	na
All Other Professional Workers	70	.61	na	na
All Other Technical Workers	140	1.22	na	na
SERVICE OCCUPATIONS, TOTAL	270	2.34	na	na
Supervisors, Nonworking--Service	70	.60	16.25	20
Guards and Doorkeepers	60	.53	13.85	32
Janitors, Porters, and Cleaners	110	.96	11.65	60
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	8,980	80.64	na	na
Supervisors, Nonworking	340	3.01	10.44	64
Carpenters	40	.34	16.14	20
Centrifugal-Casting Machine Operators	100	.92	17.60	12
Core Assemblers, Pasters, and/or Finishers	80	.67	7.99	44
Coremakers-Hand, Bench, and/or Floor	360	3.20	10.28	64

Table 44 (Continued) Iron and Steel Foundries

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Coremakers, Machine	90	.80	15.79	52
Crane, Derrick, and Hoist Operators	130	1.16	15.09	44
Drill-Press and/or Boring Machine Operators	140	1.21	13.00	24
Electricians	110	.99	9.33	40
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	760	6.82	9.98	76
Furnace Chargers	60	.49	15.43	24
Furnace Operator Helpers or Heater Helpers	60	.57	23.06	44
Furnace Operators and/or Cupola Tenders	160	1.43	13.45	84
Grinding and/or Abrading Machine Operators, Metal	170	1.54	31.12	36
Heat Treaters, Annealers, and/or Temperers	60	.54	27.63	28
Helpers, Trades	210	1.87	16.37	52
Industrial Truck Operators	260	2.31	7.08	64
Inspectors	190	1.68	14.63	64
Lathe and/or Turning Machine Operators, Metal	150	1.34	26.75	28
Machine Tool Operators, Combination	50	.46	29.90	12
Machine Tool Operators, Toolroom	40	.39	24.31	16
Machinists	80	.72	34.47	20
Maintenance Repairers, General Utility	150	1.33	20.27	60
Mechanics, Automotive	100	.88	15.42	32
Mechanics, Maintenance	220	2.01	14.69	36
Mill and/or Grinder Operators, Minerals	40	.35	47.71	12
Milling and/or Planing Machine Operators	60	.57	19.42	16
Mold Closers, Core Setters, and/or Weight and Jacket Setters	110	.99	13.03	56
Molders, Bench and/or Floor	180	1.63	16.68	44
Molders, Machine	320	2.83	19.18	60
Order Fillers	230	2.07	16.04	24
Painters, Production	60	.53	17.39	20
Patternmakers, Metal	60	.54	24.42	24
Patternmakers, Wood	70	.58	12.48	48
Pourers, Metal	200	1.80	14.19	76
Refractory Materials Repairers	40	.36	17.88	32
Sandblasters and/or Shotblasters	110	1.02	17.87	64
Sand Cutters, Mixers, and/or Slingers	90	.83	34.06	52

Table 44 (Continued) Iron and Steel Foundries

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Setters, Molding and Core-making Machine	120	1.08	14.23	28
Shakeout Workers, Foundry	270	2.44	13.68	80
Shell-Mold and/or Shell-Core Machine Operators	190	1.71	7.24	52
Steel Pourer Helpers	40	.39	14.57	20
Tool and Die Makers	50	.43	24.94	20
Truck Drivers	250	2.21	14.13	44
Wax Pattern Workers	160	1.42	49.36	20
Welders and/or Flamecutters	390	3.48	14.66	64
All Other Mechanics and Repairers	30	.31	na	na
All Other Skilled Craftsmen and Kindred Workers	160	1.43	na	na
All Other Operatives and Semi-skilled Workers	760	6.83	na	na
All Other Laborers and Unskilled Workers	880	7.92	na	na
CLERICAL OCCUPATIONS, TOTAL	1,020	9.24	na	na
Clerical Supervisors, Office or Plant	30	.30	3.82	16
Accounting Clerks	30	.27	16.41	44
Bookkeepers, Hand	50	.45	37.88	44
General Clerks, Office	60	.56	24.64	40
Order Clerks	40	.34	17.13	28
Payroll and/or Timekeeping Clerks	30	.28	8.83	52
Production Clerks and/or Coordinators	50	.44	14.03	56
Secretaries	60	.49	22.25	60
Shipping and/or Receiving Clerks	30	.30	8.35	44
Shipping Packers	290	2.61	17.50	48
Stock Clerks-Stockroom, Warehouse, or Storage Yard	100	.91	13.34	40
Typists	40	.35	4.91	28
All Other Clerical Workers	210	1.88	na	na
SALES OCCUPATIONS, TOTAL	140	1.28	na	na
Sales Clerks	50	.46	12.09	24
Sales Representatives, Agents, and/or Associates	90	.81	15.39	52

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 44 (Continued) Iron and Steel Foundries

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Furnace Operators and/or Cupola Tenders	84
Shakeout Workers, Foundry	80
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	76
Pourers, Metal	76

Table 45
SIC 333
Primary Smelting and Refining of Nonferrous Metals

This group includes establishments primarily engaged in smelting and refining copper, lead, zinc, aluminum, and nonferrous metals, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	9,360	100.00	na	na
MANAGERS AND OFFICERS	370	3.95	23.80	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	720	7.70	na	na
Accountants and Auditors	80	.81	20.72	100
Chemical Engineers	30	.36	28.21	50
Chemists	50	.55	27.31	80
Drafters	30	.32	20.76	60
Electrical and Electronic Engineers	40	.43	26.72	70
Mechanical Engineers	60	.65	24.35	70
Metallurgists and Metallurgical Engineers	40	.37	29.45	60
Personnel and Labor Relations Specialists	30	.36	18.64	90
Purchasing Agents and/or Buyers	30	.34	11.97	80
Science Technicians	130	1.34	20.36	40
All Other Engineering Technicians	50	.58	na	na
All Other Engineers	50	.48	na	na
All Other Professional and Technical Workers	100	1.07	na	na
SERVICE OCCUPATIONS, TOTAL	240	2.53	na	na
Guards and Doorkeepers	140	1.46	14.86	80
Janitors, Porters, and Cleaners	90	.96	23.94	70
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	7,380	78.92	na	na
Supervisors, Nonworking	600	6.41	14.85	80
Carpenters	40	.43	17.89	50

Table 45 (Continued) Primary Smelting and Refining of Nonferrous Metals

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Casters, Ingots,and Pigs.....	80	.89	25.92	60
Crane, Derrick, and Hoist Operators	200	2.14	6.09	60
Dust Operators, and/or Ore Crushing Dust Collectors.....	50	.53	24.20	30
Electricians.....	330	3.51	5.88	90
Furnace Chargers.....	110	1.17	31.60	60
Furnace Operator Helpers or Heater Helpers.....	60	.59	37.60	50
Furnace Operators and/or Cupola Tenders.....	210	2.24	27.44	80
Helpers, Trades.....	140	1.49	24.08	30
Industrial Truck Operators.....	200	2.17	24.73	80
Instrument Repairers.....	70	.69	16.97	50
Machinists.....	100	1.08	31.86	30
Maintenance Repairers, General Utility.....	60	.68	49.60	30
Mechanics, Automotive.....	60	.67	23.54	40
Mechanics, Maintenance.....	690	7.34	21.53	50
Painters, Maintenance.....	60	.63	19.07	50
Panelboard Operators and/or Grinding Mill Panelboard Operators.....	60	.65	26.59	30
Plumbers and/or Pipefitters.....	190	1.98	23.73	40
Pot Tenders.....	390	4.18	23.77	60
Refactory Materials Repairers.....	50	.57	10.63	70
Samplers and/or Test Preparers.....	40	.40	31.78	30
Slime Press and Filter Operators...	110	1.14	22.97	40
Stationary Engineers.....	50	.50	25.21	40
Tappers, Metal.....	110	1.21	13.64	50
Truck Drivers.....	60	.61	40.93	40
Welders and/or Flamecutters.....	230	2.45	17.96	60
All Other Mechanics and Repairers..	110	1.18	na	na
All Other Skilled Craftsmen and Kindred Workers.....	380	4.05	na	na
All Other Operatives and Semi-skilled Workers.....	1,530	16.36	na	na
All Other Laborers and Unskilled Workers.....	1,010	10.76	na	na
CLERICAL OCCUPATIONS, TOTAL.....	640	6.83	na	na
Accounting Clerks.....	70	.74	13.78	100
General Clerks, Office.....	60	.60	20.30	60
Production Clerks and/or Coordinators.....	70	.75	20.80	70
Secretaries.....	70	.69	15.16	90
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	80	.89	18.70	90

Table 45 (Continued) Primary Smelting and Refining of Nonferrous Metals

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Typists	60	.60	20.07	50
All Other Office Clerical Workers	140	1.54	na	na
All Other Plant Clerical Workers.	90	.97	na	na
SALES OCCUPATIONS	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Accountants and Auditors	100
Accounting Clerks	100
Managers and Officers	100
Electricians	90
Personnel and Labor Relations Specialists	90
Secretaries	90
Stock Clerks-Stockroom, Warehouse, or Storage Yard	90

Table 46
SIC 335
Rolling, Drawing, and Extruding of Nonferrous Metals

This group includes establishments primarily engaged in rolling, drawing, or extruding of copper, aluminum, or other nonferrous metals. Also included are establishments engaged in drawing and insulating wire and cable of nonferrous metals.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	3,710	100.00	na	na
MANAGERS AND OFFICERS	200	5.38	10.62	89
PROFESSIONAL AND TECHNICAL OCCUPATIONS	280	7.56	na	na
SERVICE OCCUPATIONS	60	1.64	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,690	72.54	na	na
Supervisors, Nonworking	150	4.07	11.90	44
Assemblers	70	1.85	45.79	17
Coilers, Winders, and/or Spoolers	110	2.87	14.41	33
Electricians	40	1.10	17.98	28
Extrusion Press Operators, Hot Billets	110	2.87	24.01	39
Industrial Truck Operators	110	2.92	13.12	44
Inspectors	90	2.46	10.09	33
Insulating Extruding Machine Operators and/or Insulating Lead Press Operators	160	4.37	7.37	33
Maintenance Repairers, General Utility	40	1.01	28.52	28
Mechanics, Maintenance	120	3.32	14.67	44
Order Fillers	40	.96	11.70	28
Production Packagers, Hand or Machine	90	2.49	32.44	22
Rolling Mill Operators and/or Attendants, Rough or Finished	40	1.07	13.64	22
Stranding Machine Operators	150	4.13	7.90	22
Stretcher-Leveler Operators	30	.88	30.36	22

Table 46 (Continued) Rolling, Drawing, and Extruding of Nonferrous Metals

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Testers	50	1.28	9.08	17
Tool and Die Makers	60	1.63	26.12	28
Truck Drivers	50	1.44	12.26	33
Wire Drawers	60	1.58	5.58	28
All Other Skilled Craftsmen and Kindred Workers	160	4.20	na	na
All Other Operatives and Semiskilled Workers	590	15.88	na	na
All Other Laborers and Unskilled Workers	370	9.93	na	na
CLERICAL OCCUPATIONS, TOTAL	390	10.46	na	na
General Clerks, Office	50	1.31	18.67	44
Secretaries	60	1.55	20.49	61
Shipping Packers	70	1.74	21.36	22
All Other Office Clerical Workers	150	4.12	na	na
All Other Plant Clerical Workers.	60	1.70	na	na
SALES OCCUPATIONS, TOTAL	90	2.42	na	na
Sales Representatives, Agents, and/or Associates	80	2.17	18.03	56
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	89
Secretaries	61
Sales Representatives, Agents, and/or Associates	56
General Clerks, Office	44
Industrial Truck Operators	44
Mechanics, Maintenance	44
Supervisors, Nonworking	44

SIC 34
FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT

The growth in this industry is influenced by the increasing demand for metal building goods, such as girders, reinforcing steel, air-conditioning duct work, metal windows and doors, and a wide variety of components for building and highway work.

An estimated 96,500 employees were reported in the Fabricated Metal Products Industry as of June 1980. This is an above average increase of 22 percent over mid-1977. The major percentage of the work force are employed by the larger factories. Houston is the dominant center of the Fabricated Metal Industry.

Fabricated Structural Metal Products (SIC 344) and Miscellaneous Fabricated Metal Products (SIC 349) are the two largest segments within this industry. Together they comprise 75 percent of the total employment or 54 and 21 percent, respectively. Most of the occupations appear under the Production and Maintenance category.

The industry, as a whole, has experienced a higher-than-average growth over the last three years. The economy, supply and demand factors, and increased automation could be deterrents in continuing growth patterns.

Table 47
SIC 341
Metal Cans and Shipping Containers

This group includes establishments primarily engaged in manufacturing metal cans and/or metal shipping barrels, drums, kegs, and pails.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	4,600	100.00	na	na
MANAGERS AND OFFICERS	140	3.06	13.03	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS	150	3.19	na	na
SERVICE OCCUPATIONS, TOTAL	90	2.06	na	na
Janitors, Porters, and Cleaners	90	1.99	18.71	71
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,900	84.87	na	na
Supervisors, Nonworking	380	8.14	6.35	90
Assemblers	200	4.38	25.28	24
Bodymaker Operators, Tin Can	230	5.06	18.35	48
Conveyor Operators or Tenders	140	3.04	33.00	33
Electricians	100	2.12	8.49	71
Industrial Truck Operators	280	6.14	9.45	81
Inspectors	150	3.19	22.28	52
Machinists	80	1.71	17.17	29
Maintenance Repairers, General Utility	60	1.36	24.72	33
Mechanics, Maintenance	480	10.38	13.11	67
Millwrights	40	.93	28.91	24
Painters, Production	140	2.97	28.67	38
Press Operators and/or Plate Printers	40	.91	37.83	24
Production Packagers, Hand or Machine	120	2.58	33.51	24
Punch-Press Operators, Metal	130	2.82	21.49	43

Table 47 (Continued) Metal Cans and Shipping Containers

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Shear and/or Slitter Operators, Metal	40	.78	32.10	38
Tool and Die Makers	50	1.12	17.60	48
Welders and/or Flamecutters	30	.73	45.69	24
All Other Mechanics and Repairers	50	1.17	na	na
All Other Skilled Craftsmen and Kindred Workers	270	5.87	na	na
All Other Operatives and Semi-skilled Workers	270	5.91	na	na
All Other Laborers and Unskilled Workers	620	13.45	na	na
CLERICAL OCCUPATIONS, TOTAL	280	6.04	na	na
Accounting Clerks	30	.73	20.36	48
Shipping and/or Receiving Clerks	30	.65	22.86	57
Stock Clerks-Stockroom, Warehouse, or Storage Yard	40	.80	11.61	52
All Other Office Clerical Workers	130	2.85	na	na
All Other Plant Clerical Workers	50	1.00	na	na
SALES OCCUPATIONS, TOTAL	40	.78	na	na
Sales Representatives, Agents, and/or Associates	40	.78	17.86	48

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Supervisors, Nonworking	90
Industrial Truck Operators	81
Electricians	71
Janitors, Porters, and Cleaners	71

Table 48
SIC 344
Fabricated Structural Metal Products

This group includes establishments primarily engaged in manufacturing fabricated structural metal; metal doors, sash, frames, molding, and trim; fabricated plate work (boiler shops); sheet metal work; architectural and ornamental metal work; prefabricated metal buildings and components; and miscellaneous metal work.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	51,670	100.00	na	na
MANAGERS AND OFFICERS.....	3,440	6.67	7.75	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	3,470	6.68	na	na
Accountants and Auditors.....	330	.64	20.99	45
Civil Engineers.....	100	.18	37.36	9
Computer Programmers.....	110	.20	30.66	17
Cost Estimators, Engineering.....	530	1.01	14.28	43
Designers.....	80	.15	31.03	13
Drafters.....	1,200	2.32	13.51	51
Industrial Engineers.....	110	.20	27.72	16
Mechanical Engineers.....	310	.59	39.01	19
Personnel and Labor Relations Specialists.....	80	.14	13.24	24
Purchasing Agents and/or Buyers....	300	.57	18.31	53
Tool Programmers, Numerical Control	30	.05	36.66	7
All Other Engineering Technicians..	120	.24	na	na
All Other Engineers.....	80	.15	na	na
All Other Professional Workers.....	60	.11	na	na
All Other Technical Workers.....	30	.06	na	na
SERVICE OCCUPATIONS, TOTAL.....	730	1.43	na	na
Guards and Doorkeepers.....	70	.14	32.36	9
Janitors, Porters, and Cleaners....	640	1.24	16.39	54
All Other Service Workers.....	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.....	38,390	74.31	na	na

Table 48 (Continued) Fabricated Structural Metal Products

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Supervisors, Nonworking.....	1,710	3.30	10.15	69
Assemblers.....	4,200	8.13	21.90	39
Crane, Derrick, and Hoist Operators.....	320	.61	26.05	21
Delivery and Route Workers.....	70	.13	45.71	8
Drill-Press and/or Boring Machine Operators.....	900	1.73	35.43	27
Electricians.....	170	.33	21.49	20
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers.....	390	.74	44.14	17
Fitters, Structural Metal.....	1,460	2.81	17.58	33
Grinding and/or Abrading Machine Operators, Metal.....	430	.83	34.41	16
Helpers, Trades.....	3,140	6.08	15.11	44
Industrial Truck Operators.....	380	.72	14.76	39
Inspectors.....	470	.91	14.76	36
Lay-Out Markers, Metal.....	570	1.10	26.06	24
Machine Tool Operators, Combination	1,180	2.27	28.78	21
Machine Tool Operators, Numerical-Control.....	100	.18	36.01	9
Machine Tool Operators, Toolroom..	50	.09	31.99	8
Machine Tool Setters, Metalworking	110	.20	38.94	8
Maintenance Repairers, General Utility.....	370	.71	19.46	33
Mechanics, Automotive.....	70	.12	39.64	12
Mechanics, Maintenance.....	540	1.05	29.24	33
Metal Fabricators.....	420	.81	43.32	10
Order Fillers.....	70	.12	40.78	8
Painters, Production.....	610	1.18	23.54	37
Power Brake and/or Bending Machine Operators, Metal.....	930	1.79	22.26	34
Production Packagers, Hand or Machine.....	310	.60	36.14	12
Punch-Press Operators, Metal.....	1,260	2.43	19.34	45
Roll Forming Machine Operators....	140	.26	28.94	11
Sandblasters and/or Shotblasters..	150	.28	22.69	17
Sawyers, Metal.....	140	.26	32.49	14
Shear and/or Slitter Operators, Metal.....	640	1.23	23.19	39
Shear and/or Slitter Setters.....	130	.25	38.52	12
Sheet Metal Workers.....	2,370	4.59	35.59	20
Tool and Die Makers.....	130	.24	34.96	10
Truck Drivers.....	1,030	2.00	24.86	55
Welders and/or Flamecutters.....	7,770	15.04	12.05	72
All Other Mechanics and Repairers.	170	.33	na	na

Table 48 (Continued) Fabricated Structural Metal Products

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Skilled Craftsmen and Kindred Workers	1,840	3.57	na	na
All Other Operatives and Semi-skilled Workers	1,460	2.83	na	na
All Other Laborers and Unskilled Workers	2,190	4.25	na	na
CLERICAL OCCUPATIONS, TOTAL	4,440	8.59	na	na
Clerical Supervisors, Office or Plant	70	.13	25.15	12
Accounting Clerks	180	.33	16.69	30
Bookkeepers, Hand	230	.44	29.17	32
Computer Operators	80	.15	25.08	18
File Clerks	40	.06	31.71	9
General Clerks, Office	760	1.46	23.90	46
Keypunch Operators	60	.12	19.81	16
Order Clerks	150	.29	44.52	14
Payroll and/or Timekeeping Clerks	110	.20	14.01	29
Personnel Clerks	70	.14	19.18	19
Procurement Clerks	50	.09	25.22	14
Production Clerks and/or Coordinators	270	.51	21.18	30
Receptionists	50	.10	42.46	11
Secretaries	1,030	1.99	15.83	66
Shipping and/or Receiving Clerks	250	.48	15.57	39
Shipping Packers	260	.50	31.02	22
Stenographers	40	.07	39.21	8
Stock Clerks-Stockroom, Warehouse, or Storage Yard	230	.44	18.58	27
Switchboard Operator-Receptionists	140	.27	22.50	38
Switchboard Operators	30	.06	25.17	9
Typists	100	.18	23.64	17
All Other Office Machine Operators	70	.14	na	na
All Other Office Clerical Workers	100	.19	na	na
All Other Plant Clerical Workers	70	.13	na	na
SALES OCCUPATIONS, TOTAL	1,200	2.32	na	na
Sales Representatives, Agents, and/or Associates	1,160	2.24	18.46	57
All Other Sales Workers	40	.08	na	na

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 48 (Continued) Fabricated Structural Metal Products

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Welders and/or Flamecutters	72
Supervisors, Nonworking	69
Secretaries	66
Sales Representatives, Agents, and/or Associates	57

Table 49
SIC 349
Miscellaneous Fabricated Metal Products

This group includes establishments primarily engaged in manufacturing steel and wire springs; valves and pipe fittings, except plumbers' brass goods; miscellaneous fabricated wire products; metal foil and leaf; fabricated pipe and pipe fittings; and fabricated metal products, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	19,920	100.00	na	na
MANAGERS AND OFFICERS	1,050	5.29	12.62	92
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	1,570	7.88	na	na
Accountants and Auditors	120	.61	8.14	50
Computer Programmers	40	.19	15.12	23
Drafters	430	2.17	24.76	54
Industrial Engineers	180	.90	11.60	19
Mechanical Engineering Technicians	50	.23	25.03	17
Mechanical Engineers	180	.88	13.07	38
Personnel and Labor Relations Specialists	60	.31	28.91	31
Purchasing Agents and/or Buyers	120	.59	6.40	50
Tool Programmers, Numerical Control	40	.21	23.02	19
All Other Engineering Technicians	80	.40	na	na
All Other Professional and Technical Workers	270	1.35	na	na
SERVICE OCCUPATIONS, TOTAL	240	1.20	na	na
Janitors, Porters, and Cleaners	210	1.06	22.12	48
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	13,590	68.29	na	na
Supervisors, Nonworking	730	3.65	11.56	77
Assemblers	2,080	10.44	15.50	56

Table 49 (Continued) Miscellaneous Fabricated Metal Products

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Crane, Derrick, and Hoist Operators	40	.20	25.55	13
Drill-Press and/or Boring Machine Operators	510	2.53	18.93	40
Electricians	50	.27	14.66	19
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	180	.90	29.23	19
Fitters, Structural Metal	260	1.28	36.98	10
Helpers, Trades	420	2.10	35.31	31
Industrial Truck Operators	220	1.08	16.43	38
Inspectors	410	2.07	9.04	54
Lathe and/or Turning Machine Operators, Metal	1,550	7.75	17.29	50
Machine Tool Operators, Combination	960	4.82	37.44	44
Machine Tool Operators, Numerical-Control	420	2.08	44.75	25
Machine Tool Operators, Toolroom	130	.65	13.30	23
Machine Tool Setters, Metal-working	70	.34	42.49	19
Machinists	510	2.53	32.16	29
Maintenance Repairers, General Utility	100	.51	19.49	19
Mechanics, Maintenance	250	1.23	20.35	52
Millwrights	30	.15	25.65	10
Order Fillers	140	.71	17.15	17
Painters, Production	160	.79	26.23	35
Power Brake and/or Bending Machine Operators, Metal	70	.37	47.66	8
Production Packagers, Hand or Machine	230	1.16	31.36	29
Punch-Press Operators, Metal	160	.80	46.39	15
Sawyers, Metal	40	.21	26.69	15
Tool and Die Makers	100	.50	28.74	27
Truck Drivers	60	.31	49.27	21
Welders and/or Flamecutters	1,180	5.92	23.87	54
All Other Mechanics and Repairers	60	.31	na	na
All Other Skilled Craftsmen and Kindred Workers	420	2.13	na	na
All Other Operatives and Semi-skilled Workers	1,790	8.98	na	na
All Other Laborers and Unskilled Workers	260	1.32	na	na
CLERICAL OCCUPATIONS, TOTAL	2,940	14.68	na	na
Clerical Supervisors, Office or Plant	90	.46	13.25	23

Table 49 (Continued) Miscellaneous Fabricated Metal Products

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Accounting Clerks	160	.81	16.36	38
Bookkeepers, Hand	130	.67	40.33	35
Computer Operators	80	.38	25.68	29
File Clerks	80	.40	13.76	29
General Clerks, Office	350	1.74	28.92	48
Keypunch Operators	60	.31	9.77	25
Order Clerks	80	.40	24.40	27
Payroll and/or Timekeeping Clerks	80	.37	15.48	42
Procurement Clerks	50	.25	12.74	29
Production Clerks and/or Coordinators	240	1.18	11.83	44
Secretaries	350	1.74	20.20	67
Shipping and/or Receiving Clerks	230	1.13	17.00	50
Shipping Packers	230	1.14	20.19	33
Stenographers	50	.22	20.45	13
Stock Clerks-Stockroom, Warehouse, or Storage Yard	220	1.10	41.34	40
Switchboard Operators-Receptionists	60	.29	15.46	46
Typists	160	.77	15.83	31
All Other Office Machine Operators	30	.16	na	na
All Other Clerical Workers	210	1.07	na	na
SALES OCCUPATIONS, TOTAL	530	2.66	na	na
Sales Clerks	50	.23	32.28	8
Sales Representatives, Agents, and/or Associates	480	2.42	23.43	52

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	92
Supervisors, Nonworking	77
Secretaries	67
Assemblers	56
Drafters	54
Inspectors	54
Welders and/or Flamecutters	54

SIC 35
MACHINERY, EXCEPT ELECTRICAL

Today more people are employed in the Machinery, Except Electrical Industry than in any other type of manufacturing. This major industry reported an estimated employment of 158,000 (June 1980)--a significant increase of 43,000 (37 percent) over the same period in 1977. A large part of the Nonelectrical Machinery Industry is concentrated in the Houston area where more than a third of all workers are employed. Oil field equipment and construction machinery are among the major outputs of the nonelectrical manufacturers.

Because of confidentiality restrictions and inadequate response, the only publishable segments in this major machinery group are: Farm and Garden Machinery and Equipment (SIC 352), Metalworking Machinery and Equipment (SIC 354), and Refrigeration and Service Industry Machinery (SIC 358). In comparison to the industry total, these segments are small. Combined, they make up 15 percent of the total employment.

The Machinery, Except Electrical Industry only increased 13 percent from 1974 to 1977, but growth has now surged over two and one-half times that rate. A continuing steady growth will depend on oil field and construction equipment. Decontrol of the oil industry will also have a major impact on employment growth.

Table 50
SIC 352
Farm and Garden Machinery and Equipment

This group includes establishments primarily engaged in manufacturing farm machinery and equipment, including wheel tractors; lawn mowers, garden tractors, and other lawn and garden equipment; and residential snowblowers and throwers.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	4,170	100.00	na	na
MANAGERS AND OFFICERS	280	6.62	8.23	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	200	4.88	na	na
Accountants and Auditors	30	.71	36.45	63
All Other Professional and Technical Workers	170	4.16	na	na
SERVICE OCCUPATIONS, TOTAL	50	1.20	na	na
Janitors, Porters, and Cleaners	40	1.00	18.46	67
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,890	69.56	na	na
Supervisors, Nonworking	130	3.08	17.32	46
Drill-Press and/or Boring Machine Operators	80	1.79	22.69	46
Helpers, Trades	30	.76	21.03	21
Industrial Truck Operators	100	2.48	19.24	58
Lathe and/or Turning Machine Operators, Metal	40	1.05	24.21	42
Machine Assemblers	370	8.91	20.60	42
Machine Tool Operators, Combination	60	1.53	30.54	33
Machine Tool Operators, Numerical-Control	30	.71	10.83	21
Machinists	50	1.12	24.61	21
Maintenance Repairers, General Utility	30	.71	11.55	38

Table 50 (Continued) Farm and Garden Machinery and Equipment

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Order Fillers	40	.83	12.87	29
Painters, Production	90	2.24	12.96	79
Power Brake and/or Bending Machine Operators, Metal	30	.78	15.38	33
Punch-Press Operators, Metal	70	1.72	32.10	50
Tool and Die Makers	30	.71	12.09	33
Truck Drivers	50	1.26	23.44	54
Welders and/or Flamecutters	740	17.73	11.50	83
All Other Assemblers	200	4.74	na	na
All Other Skilled Craftsmen and Kindred Workers	160	3.90	na	na
All Other Operatives and Semi-skilled Workers	350	8.33	na	na
All Other Laborers and Unskilled Workers	210	5.05	na	na
CLERICAL OCCUPATIONS, TOTAL	520	12.40	na	na
Accounting Clerks	30	.74	9.63	46
General Clerks, Office	80	1.79	35.01	46
Production Clerks and/or Coordinators	30	.78	19.80	38
Secretaries	110	2.55	21.05	79
Shipping and/or Receiving Clerks	60	1.50	39.81	42
Stock Clerks-Stockroom, Warehouse, or Storage Yard	60	1.43	31.14	50
All Other Clerical Workers	150	3.57	na	na
SALES OCCUPATIONS, TOTAL	230	5.34	na	na
Sales Representatives, Agents, and/or Associates	220	5.16	31.26	75
All Other Sales Workers	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Welders and/or Flamecutters	83
Painters, Production	79
Secretaries	79
Sales Representatives, Agents, and/or Associates	75

Table 51
SIC 354
Metalworking Machinery and Equipment

This group includes establishments primarily engaged in manufacturing metalworking machinery and equipment such as cutting and forming machine tools; machine tool accessories and measuring devices; power driven hand tools; rolling mill machinery and equipment; and metalworking machinery, not elsewhere classified. This group also includes contract tool and die shops making special tools and fixtures such as dies; punches; die sets and components, and subpresses; jigs and fixtures; and industrial molds.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	5,230	100.00	na	na
MANAGERS AND OFFICERS	430	8.29	6.99	94
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	340	6.29	na	na
Drafters	70	1.28	15.83	29
Electrical and Electronic Engineers	40	.69	29.92	19
Mechanical Engineers	60	1.15	16.01	35
All Other Engineering Technicians	50	.88	na	na
All Other Professional and Technical Workers	120	2.27	na	na
SERVICE OCCUPATIONS, TOTAL	90	1.67	na	na
Janitors, Porters, and Cleaners	80	1.44	12.45	46
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,560	68.32	na	na
Supervisors, Nonworking	150	2.84	7.68	50
Drill-Press and/or Boring Machine Operators	350	6.67	7.65	27
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	80	1.46	8.04	13

Table 51 (Continued) Metalworking Machinery and Equipment

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Grinding and/or Abrading Machine Operators, Metal	160	3.11	30.06	25
Helpers, Trades	40	.73	33.70	13
Inspectors	80	1.48	10.01	23
Lathe and/or Turning Machine Operators, Metal	270	5.09	7.61	33
Machine Assemblers	370	7.07	9.91	33
Machine Tool Operators, Combination	270	5.26	22.16	31
Machine Tool Operators, Numerical-Control	90	1.74	24.64	27
Machine Tool Setters, Metalworking	50	1.01	37.61	15
Machinists	190	3.69	25.95	33
Maintenance Repairers, General Utility	40	.69	6.68	13
Milling and/or Planing Machine Operators	220	4.19	15.55	27
Order Fillers	30	.65	10.67	10
Painters, Production	30	.63	16.92	15
Production Packagers, Hand or Machine	40	.84	10.41	6
Punch-Press Operators, Metal	110	2.11	33.87	17
Tool and Die Makers	280	5.45	25.07	44
Welders and/or Flamecutters	260	5.01	11.90	42
All Other Assemblers	80	1.44	na	na
All Other Skilled Craftsmen and Kindred Workers	120	2.21	na	na
All Other Operatives and Semi-skilled Workers	170	3.27	na	na
All Other Laborers and Unskilled Workers	80	1.54	na	na
CLERICAL OCCUPATIONS, TOTAL	590	11.18	na	na
General Clerks, Office	120	2.30	16.44	56
Production Clerks and/or Coordinators	40	.69	16.65	23
Secretaries	130	2.46	14.35	60
Stock Clerks-Stockroom, Warehouse, or Storage Yard	100	1.90	9.08	44
All Other Office Clerical Workers	140	2.73	na	na
All Other Plant Clerical Workers	60	1.08	na	na
SALES OCCUPATIONS, TOTAL	220	4.25	na	na

Table 51 (Continued) Metalworking Machinery and Equipment

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Sales Representatives, Agents, and/or Associates.....	200	3.80	10.36	42
All Other Sales Workers.....	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	94
Secretaries	60
General Clerks, Office	56
Supervisors, Nonworking	50
Janitors, Porters, and Cleaners	46

Table 52
SIC 358
Refrigeration and Service Industry Machinery

This group includes establishments primarily engaged in manufacturing automatic merchandising machines; commercial laundry, dry cleaning, and pressing machines; air conditioning and warm air heating equipment and commercial and industrial refrigeration equipment; measuring and dispensing pumps; and service industry machines, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	13,970	100.00	na	na
MANAGERS AND OFFICERS	840	6.04	11.06	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	1,360	9.69	na	na
Accountants and Auditors	130	.96	12.59	73
Cost Estimators, Engineering	30	.22	28.20	23
Designers	60	.40	27.95	19
Drafters	170	1.21	19.73	77
Electrical and Electronic Engineers	30	.22	34.99	19
Industrial Engineering Technicians	30	.24	12.84	23
Industrial Engineers	100	.73	5.15	42
Mechanical Engineers	140	.98	30.47	1
Personnel and Labor Relations Specialists	40	.30	13.13	58
Purchasing Agents and/or Buyers	70	.48	6.89	65
Science Technicians	70	.46	26.74	19
All Other Engineering Technicians	300	2.11	na	na
All Other Engineers	40	.27	na	na
All Other Professional Workers	110	.77	na	na
All Other Technical Workers	40	.28	na	na
SERVICE OCCUPATIONS, TOTAL	160	1.08	na	na
Guards and Doorkeepers	50	.32	22.94	23
Janitors, Porters, and Cleaners	90	.60	18.59	58
All Other Service Workers	2/			

Table 52 (Continued) Refrigeration and Service Industry Machinery

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.....	9,160	65.57	na	na
Supervisors, Nonworking.....	490	3.51	7.71	81
Compression and/or Injection-Molding Machine Operators, Plastics.....	230	1.67	41.36	12
Drill-Press and/or Boring Machine Operators.....	70	.46	36.74	23
Electricians.....	60	.44	27.08	27
Electro-Mechanical Equipment Assemblers.....	100	.69	39.52	15
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers.....	120	.88	31.89	19
Helpers, Trades.....	170	1.20	30.88	19
Industrial Truck Operators.....	170	1.20	23.86	38
Inspectors.....	190	1.39	13.47	46
Machine Assemblers.....	1,170	8.40	22.58	42
Machinists.....	70	47	30.24	23
Maintenance Repairers, General Utility.....	310	2.18	36.97	38
Mechanics, Maintenance.....	70	.49	35.71	15
Order Fillers.....	30	.24	42.66	19
Painters, Production.....	170	1.18	17.51	73
Power Brake and/or Bending Machine Operators, Metal.....	140	.97	25.04	27
Production Packagers, Hand or Machine.....	160	1.12	31.92	23
Punch-Press Operators, Metal.....	350	2.53	30.17	58
Punch-Press Setters, Metal.....	80	.56	27.12	19
Refrigeration Mechanics and/or Air Conditioning Mechanics.....	100	.72	38.37	27
Sawyers, Metal.....	40	.27	37.87	19
Shear and/or Slitter Operators, Metal.....	90	.63	18.77	46
Shear and/or Slitter Setters.....	30	.22	36.85	19
Sheet Metal Workers.....	270	1.94	35.36	38
Testers.....	80	.60	24.83	15
Tool and Die Makers.....	80	.55	12.77	35
Truck Drivers.....	130	.91	29.29	46
Welders and/or Flamecutters.....	670	4.80	17.34	73
All Other Assemblers.....	990	7.10	na	na
All Other Skilled Craftsmen and Kindred Workers.....	360	2.56	na	na

Table 52 (Continued) Refrigeration and Service Industry Machinery

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Operatives and Semi-skilled Workers	1,750	12.54	na	na
All Other Laborers and Unskilled Workers	420	3.00	na	na
CLERICAL OCCUPATIONS, TOTAL	2,070	14.87	na	na
Clerical Supervisors, Office or Plant	50	.37	25.00	35
Accounting Clerks	60	.45	15.50	58
Bookkeeping and/or Billing Machine Operators	30	.24	33.08	12
Computer Operators	60	.42	24.11	54
General Clerks, Office	260	1.86	27.96	58
Keypunch Operators	40	.29	15.15	46
Order Clerks	80	.56	20.62	46
Payroll and/or Timekeeping Clerks	50	.36	27.42	65
Procurement Clerks	60	.43	33.98	35
Production Clerks and/or Coordinators	160	1.11	15.79	54
Secretaries	240	1.74	16.01	77
Shipping and/or Receiving Clerks	180	1.27	16.39	62
Shipping Packers	320	2.25	29.92	58
Stock Clerks-Stockroom, Warehouse, or Storage Yard	150	1.06	31.19	54
Switchboard Operator-Receptionists	50	.32	25.08	69
Typists	60	.45	26.88	46
All Other Office Machine Operators	70	.52	na	na
All Other Office Clerical Workers	110	.80	na	na
All Other Plant Clerical Workers	40	.28	na	na
SALES OCCUPATIONS, TOTAL	380	2.75	na	na
Sales Representatives, Agents, and/or Associates	360	2.60	23.93	73
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 52 (Continued) Refrigeration and Service Industry Machinery

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Supervisors, Nonworking	81
Drafters	77
Secretaries	77

SIC 36
ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT, AND SUPPLIES

Radio and electronic equipment are key products of the Electrical and Electronic Machinery, Equipment, and Supplies Industry. In 1980, this industry reported approximately 109,500 electrical machinery workers with more than half of these workers employed in the Dallas-Fort Worth SMSA.

Due to confidentiality and inadequate response, the only publishable segments in this major industry are: Electrical Industrial Apparatus (SIC 362), Communication Equipment (SIC 366), and Miscellaneous Electrical Machinery, Equipment, and Supplies (SIC 369). Combined, these three segments represent 29 percent of the total employment with Communication Equipment being the largest contributor (19 percent).

The employment outlook for this major industry can be considered good. Although the increasing level of imports may adversely affect production, the demand for television sets, video tape recorders, etc., will rise as population and personal income grows. Emphasis on government defense purchases will continue to account for a large proportion of the electronic manufacturing output. Skilled workers will have advantage in the future job markets.

Table 53
SIC 362
Electrical Industrial Apparatus

This group includes establishments primarily engaged in manufacturing motors and generators; industrial controls; electric welding apparatus; carbon and graphite products; and industrial and commercial electric apparatus and equipment, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	4,770	100.00	na	na
MANAGERS AND OFFICERS	310	6.54	13.89	82
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	900	19.24	na	na
Accountants and Auditors	30	.67	18.25	47
Drafters	180	3.75	15.49	59
Electrical and Electronic Engineers	170	3.45	13.90	71
Electrical and Electronic Technicians	170	3.64	14.93	53
Industrial Engineers	70	1.52	8.20	35
Mechanical Engineers	60	1.34	19.22	41
Purchasing Agents and/or Buyers	50	1.11	13.96	65
All Other Engineering Technicians	80	1.76	na	na
All Other Professional and Technical Workers	90	1.97	na	na
SERVICE OCCUPATIONS, TOTAL	40	.75	na	na
Janitors, Porters, and Cleaners	30	.64	43.71	53
All Other Service Workers	[2/]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	2,830	59.25	na	na
Supervisors, Nonworking	130	2.76	22.28	53
Drill-Press and/or Boring Machine Operators	50	.94	29.13	24
Electrical and Electronic Assemblers	350	7.39	20.69	35

Table 53 (Continued) Electrical Industrial Apparatus

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Electro-Mechanical Equipment Assemblers	210	4.44	24.22	29
Helpers, Trades	210	4.42	46.52	41
Machine Tool Operators, Numerical-Control	60	1.17	19.41	29
Mechanics, Maintenance	50	.94	38.06	29
Testers	50	.96	36.98	24
Welders and/or Flamecutters	60	1.29	34.47	29
Wirers, Electronic	260	5.44	21.10	24
All Other Assemblers	110	2.37	na	na
All Other Mechanics and Repairers	130	2.75	na	na
All Other Skilled Craftsmen and Kindred Workers	350	7.38	na	na
All Other Operatives and Semi-skilled Workers	710	14.80	na	na
All Other Laborers and Unskilled Workers	100	2.16	na	na
CLERICAL OCCUPATIONS, TOTAL	610	12.56	na	na
Accounting Clerks	60	1.19	12.36	53
Production Clerks and/or Coordinators	50	1.00	22.49	41
Secretaries	110	2.28	19.30	71
Shipping and/or Receiving Clerks	30	.64	10.18	41
Stock Clerks-Stockroom, Warehouse, or Storage Yard	90	1.80	15.19	53
All Other Office Clerical Workers	230	4.78	na	na
All Other Plant Clerical Workers	40	.84	na	na
SALES OCCUPATIONS, TOTAL	80	1.66	na	na
Sales Representatives, Agents, and/or Associates	70	1.40	28.63	41
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 53 (Continued) Electrical Industrial Apparatus

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	82
Electrical and Electronic Engineers	71
Secretaries	71
Purchasing Agents and/or Buyers	65
Drafters	59

Table 54
SIC 366
Communication Equipment

This group includes establishments primarily engaged in manufacturing wire telephone and telegraph equipment, and parts especially designed for telephone and telegraph use. Also manufactured are radio and television transmitting, signaling, and detection equipment and apparatus.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	20,560	100.00	na	na
MANAGERS AND OFFICERS	2,310	11.26	17.55	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	8,430	40.93	na	na
Accountants and Auditors	310	1.51	18.72	71
Commerical Artists	110	.51	18.90	29
Computer Programmers, Business	50	.22	30.04	24
Computer Programmers, Scientific and Technical	560	2.71	20.58	29
Contract Administrators	40	.17	47.45	29
Drafters	490	2.36	20.34	86
Electrical and Electronic Engineers	3,110	15.15	9.12	81
Electrical and Electronic Technicians	1,640	7.99	21.94	81
Industrial Engineering Technicians	160	.78	32.78	29
Industrial Engineers	370	1.79	39.43	67
Mechanical Engineering Technicians	50	.22	26.36	24
Mechanical Engineers	120	.55	42.50	57
Personnel and Labor Relations Specialists	100	.48	17.79	57
Purchasing Agents and/or Buyers	170	.80	25.20	81
Systems Analysts, Business	160	.76	27.55	24
Systems Analysts, Scientific and Technical	150	.73	17.88	19
Writers and/or Editors	170	.81	15.03	38
All Other Engineers	170	.83	na	na
All Other Professional Workers	430	2.11	na	na
All Other Technical Workers	70	.35	na	na

Table 54 (Continued) Communication Equipment

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SERVICE OCCUPATIONS, TOTAL.....	250	1.22	na	na
Guards and Doorkeepers.....	50	.26	31.66	24
Janitors, Porters, and Cleaners.	150	.70	24.27	67
All Other Service Workers.....	50	.25	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	6,080	29.65	na	na
Supervisors, Nonworking.....	280	1.37	31.14	62
Coil Winders.....	50	.24	30.20	19
Electrical and Electronic Assemblers.....	1,880	9.16	37.36	71
Helpers, Trades.....	60	.30	20.57	19
Inspectors.....	280	1.34	19.06	57
Instrument Makers and/or Assemblers.....	370	1.78	44.69	19
Maintenance Repairers, General Utility.....	40	.18	17.58	33
Mechanics, Maintenance.....	50	.24	29.50	29
Production Packagers, Hand or Machine.....	70	.36	41.43	24
Sheet Metal Workers.....	90	.42	17.52	33
Testers.....	310	1.48	24.16	43
Wirers, Electronic.....	400	1.96	46.36	24
All Other Assemblers.....	1,000	4.86	na	na
All Other Mechanics and Repairers.....	40	.20	na	na
All Other Skilled Craftsmen and Kindred Workers.....	260	1.29	na	na
All Other Operatives and Semi-skilled Workers.....	770	3.75	na	na
All Other Laborers and Unskilled Workers.....	130	.65	na	na
CLERICAL OCCUPATIONS, TOTAL.....	3,300	16.02	na	na
Clerical Supervisors, Office or Plant.....	160	.76	25.94	38
Accounting Clerks.....	260	1.25	18.00	71
Computer Operators.....	80	.39	34.47	43
File Clerks.....	50	.25	15.23	33
General Clerks, Office.....	220	1.07	11.58	52
Keypunch Operators.....	80	.38	29.86	38
Order Clerks.....	40	.19	37.32	24
Personnel Clerks.....	60	.27	29.84	52
Procurement Clerks.....	50	.25	6.82	43

Table 54 (Continued) Communication Equipment

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Production Clerks and/or Coordinators	280	1.34	30.41	71
Secretaries	910	4.44	14.81	81
Statistical Clerks	60	.26	28.51	19
Stock Clerks-Stockroom, Warehouse, or Storage Yard	230	1.10	29.24	67
Switchboard Operator-Receptionists	40	.18	44.92	67
Switchboard Operators	40	.21	33.10	19
Typists	200	.99	16.37	43
All Other Office Machine Operators	70	.34	na	na
All Other Office Clerical Workers	260	1.26	na	na
All Other Plant Clerical Workers	210	1.01	na	na
SALES OCCUPATIONS, TOTAL	190	.92	na	na
Sales Representatives, Agents, and/or Associates	160	.77	37.93	62
All Other Sales Workers	30	.15	na	na

1/ Based on unrounded data.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Drafters	86
Electrical and Electronic Engineers	81
Electrical and Electronic Technicians	81
Purchasing Agents and/or Buyers	81
Secretaries	81

Table 55
SIC 369
Miscellaneous Electrical Machinery, Equipment, and Supplies

This group includes establishments primarily engaged in manufacturing storage batteries; dry and wet primary batteries; radiographic, fluoroscopic, therapeutic, and other x-ray apparatus and tubes; and electromedical and electrotherapeutic apparatus. Also included are establishments manufacturing electrical equipment for internal combustion engines; and electrical machinery, equipment, and supplies, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	6,180	100.00	na	na
MANAGERS AND OFFICERS	380	6.17	17.72	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	740	12.08	na	na
Accountants and Auditors	40	.69	12.90	42
Designers	30	.51	35.68	16
Drafters	50	.82	29.81	32
Electrical and Electronic Engineers	100	1.61	27.51	37
Electrical and Electronic Technicians	150	2.45	30.14	37
Industrial Engineers	60	.98	30.40	47
Mechanical Engineering Technicians	40	.66	35.08	21
Purchasing Agents and/or Buyers	40	.63	35.15	47
All Other Engineers	90	1.39	na	na
All Other Professional Workers	80	1.36	na	na
All Other Technical Workers	60	.95	na	na
SERVICE OCCUPATIONS, TOTAL	120	1.89	na	na
Guards and Doorkeepers	40	.61	6.33	16
Janitors, Porters, and Cleaners	70	1.14	15.88	32
All Other Service Workers	2/			.
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,930	63.40	na	na
Supervisors, Nonworking	150	2.48	14.48	58

Table 55 (Continued) Miscellaneous Electrical Machinery, Equipment, and Supplies

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Electrical and Electronic Assemblers	370	6.01	37.74	32
Electro-Mechanical Equipment Assemblers	290	4.73	5.30	16
Industrial Truck Operators	70	1.13	18.77	37
Inspectors	150	2.44	15.90	32
Maintenance Repairers, General Utility	70	1.11	22.25	32
Mechanics, Maintenance	70	1.13	25.20	26
Mixers and/or Blenders, Chemicals and Chemical Products	60	1.03	9.82	21
Production Packagers, Hand or Machine	260	4.12	43.73	32
Shear and/or Slitter Operators, Metal	50	.72	38.57	16
Truck Drivers	50	.77	33.72	21
All Other Assemblers	640	10.32	na	na
All Other Mechanics and Repairers	150	2.39	na	na
All Other Skilled Craftsmen and Kindred Workers	330	5.31	na	na
All Other Operatives and Semi-skilled Workers	740	11.94	na	na
All Other Laborers and Unskilled Workers	480	7.74	na	na
CLERICAL OCCUPATIONS, TOTAL	880	14.31	na	na
Accounting Clerks	90	1.51	22.76	47
General Clerks, Office	250	4.00	28.74	42
Production Clerks and/or Coordinators	80	1.32	10.67	47
Secretaries	120	1.92	17.39	58
Shipping and/or Receiving Clerks	100	1.64	33.87	53
Stock Clerks-Stockroom, Warehouse, or Storage Yard	50	.87	39.71	47
All Other Clerical Workers	190	3.02	na	na
SALES OCCUPATIONS, TOTAL	130	2.15	na	na
Sales Representatives, Agents, and/or Associates	120	1.93	27.60	42
All Other Sales Workers	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 55 (Continued) Miscellaneous Electrical Machinery, Equipment, and Supplies

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Secretaries	58
Supervisors, Nonworking	58
Shipping and/or Receiving Clerks	53

SIC 37
TRANSPORTATION EQUIPMENT

In Texas, the bulk of the Transportation Equipment Industry is centered in three major segments: Motor Vehicles and Motor Vehicle Equipment (SIC 371), Aircraft and Parts (SIC 372), and Ship and Boat Building and Repairing (SIC 373). The June 1980 employment of these segments was 13,845; 49,271; and 10,875; respectively. Combined, these groups account for 91 percent of the industry's total employment.

The only downturn appeared in Motor Vehicles where no movement has been evident over the last three years. The largest employment increase occurred in Aircraft and Parts with a 22 percent jump over the mid-1977 period. Ship and Boat Building and Repairing increased 13 percent over the same period.

The majority of the Transportation Equipment Industry is concentrated in the Dallas-Fort Worth area, but Coastal shipyards also contributed significantly to the industry's total employment.

Erratic employment is expected to continue in the Motor Vehicles segment. Military build up, coupled with expanding foreign markets, is expected to aid and expand employment in the Aircraft and Ship Building segments.

Table 56
SIC 371
Motor Vehicles and Motor Vehicle Equipment

This group includes establishments engaged in manufacturing or assembling complete passenger automobiles, trucks, commercial cars and buses, and special purpose motor vehicles; passenger car bodies or chassis; truck and bus bodies; truck trailers, truck trailer chassis, and detachable trailer bodies and chassis; and motor vehicle parts and accessories.

Occupation	Estimated Empl.	% of Total Empl.[1]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	13,870	100.00	na	na
MANAGERS AND OFFICERS.....	690	5.00	9.38	93
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	520	3.72	na	na
Accountants and Auditors.....	70	.50	12.69	44
Drafters.....	60	.41	22.92	29
Industrial Engineers.....	60	.41	15.31	20
Personnel and Labor Relations Specialists.....	30	.24	11.06	22
Purchasing Agents and/or Buyers..	130	.91	28.95	68
All Other Engineering Technicians	60	.43	na	na
All Other Engineers.....	60	.46	na	na
All Other Professional and Technical Workers.....	50	.33	na	na
SERVICE OCCUPATIONS, TOTAL.....	300	2.19	na	na
Guards and Doorkeepers.....	50	.37	23.04	10
Janitors, Porters, and Cleaners..	240	1.73	7.51	41
All Other Service Workers.....	[2]			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.	11,070	79.78	na	na
Supervisors, Nonworking.....	450	3.25	8.61	56
Drill-Press and/or Boring Machine Operators.....	100	.70	38.14	20
Electricians.....	100	.69	17.55	20

Table 56 (Continued) Motor Vehicles and Motor Vehicle Equipment

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	200	1.43	24.40	22
Grinding and/or Abrading Machine Operators, Metal	60	.43	42.42	12
Helpers, Trades	90	.66	39.19	17
Industrial Truck Operators	130	.94	11.15	22
Inspectors	340	2.48	6.12	32
Lathe and/or Turning Machine Operators, Metal	90	.62	45.32	15
Machine Assemblers	650	4.69	23.96	24
Machinists	180	1.26	40.77	29
Maintenance Repairers, General Utility	50	.39	19.33	32
Mechanics, Maintenance	80	.57	18.56	22
Order Fillers	70	.49	49.57	10
Painters, Production	370	2.64	15.93	51
Plumbers and/or Pipefitters	70	.52	9.54	10
Power Brake and/or Bending Machine Operators, Metal	70	.51	23.94	27
Punch-Press Operators, Metal	80	.54	26.47	24
Riveters, Light	200	1.43	47.02	7
Shear and/or Slitter Operators, Metal	70	.53	23.15	29
Sheet Metal Workers	260	1.89	37.94	15
Truck Drivers	90	.63	20.58	34
Welders and/or Flamecutters	1,940	14.02	11.09	78
All Other Assemblers	2,550	18.41	na	na
All Other Mechanics and Repairers	130	.96	na	na
All Other Skilled Craftsmen and Kindred Workers	290	2.06	na	na
All Other Operatives and Semiskilled Workers	1,880	13.56	na	na
All Other Laborers and Unskilled Workers	480	3.43	na	na
CLERICAL OCCUPATIONS, TOTAL	960	6.92	na	na
Accounting Clerks	70	.49	19.53	41
Bookkeepers, Hand	40	.31	20.36	27
General Clerks, Office	110	.81	18.16	37
Keypunch Operators	40	.28	13.50	29
Payroll and/or Timekeeping Clerks	40	.25	20.33	39
Production Clerks and/or Coordinators	60	.46	13.81	27

Table 56 (Continued) Motor Vehicles and Motor Vehicle Equipment

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Secretaries	100	.72	28.58	56
Shipping and/or Receiving Clerks	80	.60	18.14	39
Shipping Packers	80	.55	37.10	27
Stock Clerks-Stockroom, Warehouse, or Storage Yard	120	.86	15.29	46
Switchboard Operator-Receptionists	40	.26	19.86	44
All Other Clerical Workers	180	1.28	na	na
SALES OCCUPATIONS, TOTAL	330	2.39	na	na
Sales Representatives, Agents, and/or Associates	330	2.39	30.10	71

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	93
Welders and/or Flamecutters	78
Sales Representatives, Agents, and/or Associates	71
Purchasing Agents and/or Buyers	68
Secretaries	56
Supervisors, Nonworking	56

Table 57
SIC 372
Aircraft and Parts

This group includes establishments primarily engaged in manufacturing or assembling complete aircraft, aircraft engines and engine parts, and aircraft parts and auxiliary equipment, not elsewhere classified. Research and development is also included in this industry group. Excluded are primary manufacturers of aeronautical instruments, aeronautical electrical equipment, and guided missile and space vehicle parts.

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	49,370	100.00	na	na
MANAGERS AND OFFICERS.....	2,700	5.48	2.20	96
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	13,010	26.40	na	na
Accountants and Auditors.....	410	.84	1.12	68
Aeronautical Engineers.....	1,900	3.86	1.43	48
Chemists.....	60	.11	0.00	16
Commerical Artists.....	270	.54	.90	28
Computer Programmers, Business....	270	.54	0.00	36
Computer Programmers, Scientific and Technical.....	150	.30	2.43	24
Designers.....	110	.22	6.03	20
Drafters.....	280	.57	3.14	48
Electrical and Electronic Engineers.....	1,000	2.03	.26	32
Electrical and Electronic Technicians.....	440	.88	6.99	32
Industrial Engineers.....	1,430	2.90	1.37	60
Mechanical Engineering Technicians	80	.16	0.00	12
Mechanical Engineers.....	650	1.31	1.26	32
Metallurgists and Metallurgical Engineers.....	50	.09	2.04	28
Nurses, Professional.....	30	.06	2.97	36
Personnel and Labor Relations Specialists.....	220	.44	.92	52
Purchasing Agents and/or Buyers...	570	1.15	4.75	80
Science Technicians.....	30	.06	0.00	12

Table 57 (Continued) Aircraft and Parts

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Statisticans	200	.39	.46	16
Systems Analysts, Business	300	.60	.29	36
Systems Analysts, Scientific and Technical	250	.51	.73	24
Tool Programmers, Numercial Control	60	.12	1.44	24
Writers and/or Editors	490	.99	.18	32
All Other Engineering Technicians	260	.52	na	na
All Other Engineers	1,610	3.27	na	na
All Other Mathematical Scientists	30	.07	na	na
All Other Professional Workers	1,590	3.23	na	na
All Other Technical Workers	270	.54	na	na
SERVICE OCCUPATIONS, TOTAL	960	1.97	na	na
Supervisors, Nonworking--Service.	40	.08	0.00	16
Guards and Doorkeepers	310	.63	3.91	40
Janitors, Porters, and Cleaners	520	1.05	5.75	68
All Other Service Workers	90	.19	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL.	24,830	50.27	na	na
Supervisors, Nonworking	2,240	4.54	1.96	76
Aircraft Structure and Surfaces Assemblers	3,420	6.93	4.99	48
Carpenters	110	.22	4.16	36
Dip Platers, Non-Electrolytic	30	.06	25.03	12
Drill Press and/or Boring Machine Operators	390	.78	11.75	48
Electrical and Electronic Assemblers	1,760	3.56	3.78	28
Electricians	260	.52	3.54	40
Electro-Mechanical Equipment Assemblers	250	.50	6.99	20
Electroplaters	250	.50	18.54	40
Fabricators, Plastics	320	.64	12.13	20
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers	220	.43	17.88	36
Grinding and/or Abrading Machine Operators, Metal	380	.77	20.20	44
Heat Treaters, Annealers, and/or Temperers	80	.15	2.88	36
Helpers, Trades	170	.33	43.03	24

Table 57 (Continued) Aircraft and Parts

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Industrial Truck Operators	130	.26	10.50	16
Inspectors	1,590	3.23	3.57	64
Instrument Repairers	170	.34	2.34	24
Laminators, Preforms	620	1.25	27.00	20
Lathe and/or Turning Machine Operators, Metal	700	1.41	13.30	48
Lay-Out Markers, Metal	60	.11	6.29	20
Machine Assemblers	340	.68	17.59	28
Machine Tool Operators, Combination	460	.93	37.24	36
Machine Tool Operators, Numerical Control	350	.71	25.15	36
Machine Tool Operators, Toolroom	190	.38	26.82	24
Machinists	270	.54	17.99	40
Maintenance Repairers, General Utility	180	.36	17.50	40
Mechanics, Aircraft	2,110	4.28	9.30	52
Mechanics, Automotive	60	.12	12.79	32
Mechanics, Maintenance	280	.56	16.72	44
Milling and/or Planing Machine Operators	860	1.74	17.37	44
Oilers	40	.08	10.36	20
Painters, Maintenance	80	.16	11.39	28
Painters, Production	600	1.21	4.72	68
Patternmakers, Metal	80	.16	0.00	12
Plater Helpers	60	.11	17.18	24
Plumbers and/or Pipefitters	60	.11	0.00	16
Power Brake and/or Bending Machine Operators, Metal	50	.10	3.55	16
Production Packagers, Hand or Machine	80	.15	0.00	12
Punch-Press Operators, Metal	90	.17	10.15	24
Sawyers, Metal	50	.10	0.00	16
Sewing Machine Operators, Regular Equipment--Nongarment	130	.25	30.02	28
Sewing Machine Operators, Special and/or Automatic Equipment--Nongarment	60	.12	9.09	12
Shear and/or Slitter Operators, Metal	40	.07	21.87	28
Sheet Metal Workers	430	.86	30.19	36
Stationary Engineers	60	.11	0.00	12
Testers	160	.32	3.76	32
Tool and Die Makers	440	.89	9.19	56
Truck Drivers	90	.18	7.00	36
Welders and/or Flamecutters	330	.66	14.80	52

Table 57 (Continued) Aircraft and Parts

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Assemblers	690	1.39	na	na
All Other Mechanics and Repairers	170	.33	na	na
All Other Skilled Craftsmen and Kindred Workers	680	1.37	na	na
All Other Operatives and Semiskilled Workers	1,620	3.28	na	na
All Other Laborers and Unskilled Workers	490	.99	na	na
CLERICAL OCCUPATIONS, TOTAL	7,640	15.42	na	na
Clerical Supervisors, Office or Plant	140	.27	0.00	20
Accounting Clerks	290	.58	2.17	56
Computer Operators	100	.19	3.73	44
File Clerks	60	.11	3.45	28
General Clerks, Office	1,600	3.24	2.91	52
Keypunch Operators	140	.27	1.78	40
Order Clerks	50	.10	5.57	16
Payroll and/or Timekeeping Clerks	100	.19	2.14	44
Peripheral EDP Equipment Operators	120	.23	0.00	24
Personnel Clerks	50	.09	4.56	40
Procurement Clerks	180	.35	1.27	40
Production Clerks and/or Coordinators	910	1.84	1.49	72
Secretaries	860	1.75	2.97	84
Shipping and/or Receiving Clerks	140	.27	9.42	60
Shipping Packers	70	.13	7.70	20
Statistical Clerks	120	.23	5.36	32
Stenographers	610	1.22	.30	28
Stock Clerks-Stockroom, Warehouse, or Storage Yard	920	1.87	1.00	56
Switchboard Operators	60	.12	6.81	48
Typists	160	.32	1.78	32
All Other Office Machine Operators	120	.24	na	na
All Other Office Clerical Workers	700	1.42	na	na
All Other Plant Clerical Workers	140	.28	na	na
SALES OCCUPATIONS, TOTAL	230	.46	na	na
Sales Representatives, Agents, and/or Associates	230	.46	8.13	32

1/ Based on unrounded data.

Table 57 (Continued) Aircraft and Parts

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	96
Secretaries	84
Purchasing Agents and/or Buyers	80
Supervisors, Nonworking	76
Production Clerks and/or Coordinators	72

Table 58
SIC 373
Ship and Boat Building and Repairing

This group includes establishments primarily engaged in building and repairing all types of boats, ships, barges, and lighters, whether propelled by sail, motor power, or towed by other craft. Also included is the conversion and alteration of ships. Excluded are primary manufacturers of rubber and nonrigid plastic boats; fabricators of structural assemblies or components for ships, or subcontractors engaged in ship painting, joinery, carpentry work, electrical wiring installation, etc.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	10,900	100.00	na	na
MANAGERS AND OFFICERS.....	410	3.76	8.93	82
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	470	4.26	na	na
Drafters.....	110	.98	30.24	32
Purchasing Agents and/or Buyers.	60	.50	11.57	59
All Other Professional Workers..	250	2.32	na	na
All Other Technical Workers.....	50	.46	na	na
SERVICE OCCUPATIONS, TOTAL.....	220	1.96	na	na
Guards and Doorkeepers.....	140	1.25	17.87	50
Janitors, Porters, and Cleaners.	50	.44	26.65	50
All Other Service Workers.....	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	9,110	83.68	na	na
Supervisors, Nonworking.....	540	4.98	7.33	64
Boilermakers.....	230	2.12	49.05	18
Carpenters.....	290	2.63	21.71	55
Crane. Derrick, and Hoist Operators.....	190	1.77	13.84	41
Electricians.....	260	2.42	12.62	59
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers.....	60	.57	39.45	27

Table 58 (Continued) Ship and Boat Building and Repairing

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Helpers, Trades	260	2.40	36.51	23
Industrial Truck Operators	30	.28	41.35	18
Lathe and/or Turning Machine Operators, Metal	50	.41	40.93	14
Lay-Out Markers, Metal	130	1.23	16.19	36
Machinists	210	1.93	29.42	32
Mechanics, Automotive	40	.34	20.46	41
Millwrights	40	.34	36.08	14
Painters, Maintenance	90	.82	35.85	27
Painters, Production	310	2.80	17.89	59
Plumbers and/or Pipefitters	300	2.72	15.90	32
Power Brake and/or Bending Machine Operators, Metal	50	.45	21.67	23
Riggers	130	1.19	19.88	23
Shipfitters	1,360	12.51	11.62	41
Shipwrights	160	1.42	49.82	14
Truck Drivers	40	.40	40.35	32
Welders and/or Flamecutters	2,310	21.20	9.25	64
All Other Mechanics and Repairers.	190	1.76	na	na
All Other Skilled Craftsmen and Kindred Workers	240	2.22	na	na
All Other Operatives and Semiskilled Workers	690	6.29	na	na
All Other Laborers and Unskilled Workers	910	8.38	na	na
CLERICAL OCCUPATIONS, TOTAL	640	5.93	na	na
Accounting Clerks	60	.53	20.42	45
Bookkeepers, Hand	30	.27	39.49	32
General Clerks, Office	110	1.02	24.99	50
Payroll and/or Timekeeping Clerks.	40	.37	18.21	41
Production Clerks and/or Coordinators	30	.29	35.40	23
Secretaries	70	.64	23.32	36
Shipping and/or Receiving Clerks..	40	.34	26.46	36
Stock Clerks-Stockroom, Warehouse, or Storage Yard	90	.85	23.02	36
Typists	30	.31	19.23	18
All Other Clerical Workers	140	1.26	na	na
SALES OCCUPATIONS, TOTAL	50	.41	na	na
Sales Representatives, Agents, and/or Associates	50	.41	42.48	32

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

Table 58 (Continued) Ship and Boat Building and Repairing

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	82
Supervisors, Nonworking	64
Welders and/or Flamecutters	64
Electricians	59
Painters, Production	59
Purchasing Agents and/or Buyers	59

SIC 38
MEASURING, ANALYZING, AND CONTROLLING INSTRUMENTS; PHOTOGRAPHIC, MEDICAL, AND OPTICAL GOODS, WATCHES AND CLOCKS

The June 1980 total employment for this industry was estimated at 21,000--a 17 percent increase over the 1977 period.

The only publishable segment in this industry is Surgical, Medical, and Dental Instruments and Supplies (SIC 384) with 5,030 or almost one-quarter of the total industry employment. Over the three-year period, this segment experienced a significant 23 percent increase.

Manufacturers in this segment (SIC 384) have experienced a high demand for their products in spite of unstable economic conditions. Technological advances coupled with continuing health care needs and a growing export market should prove advantageous for this segment of the industry. Indications of demand point to a continuation of this employment trend.

Table 59
SIC 384
Surgical, Medical, and Dental Instruments and Supplies

This group includes establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus; orthopedic, prosthetic, and surgical appliances and supplies; and artificial teeth, dental metals, alloys and amalgams, and other dental equipment, instruments, and supplies.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	5,050	100.00	na	na
MANAGERS AND OFFICERS.....	440	8.74	22.11	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	380	7.50	na	na
Accountants and Auditors.....	40	.79	27.04	62
Electrical and Electronic Technicians.....	50	.93	33.53	23
Mechanical Engineers.....	30	.61	33.19	54
Science Technicians.....	50	.93	22.96	31
All Other Engineers.....	40	.88	na	na
All Other Professional Workers..	80	1.57	na	na
All Other Technical Workers.....	90	1.77	na	na
SERVICE OCCUPATIONS.....	40	.76	na	na
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,570	70.90	na	na
Supervisors, Nonworking.....	110	2.14	24.07	46
Inspectors.....	270	5.40	30.50	46
Machinists.....	40	.75	28.45	46
Mechanics, Maintenance.....	100	2.02	42.35	31
Order Fillers.....	90	1.68	38.05	23
Production Packagers, Hand or Machine.....	50	1.03	45.92	31
All Other Skilled Craftsmen and Kindred Workers.....	530	10.53	na	na
All Other Operatives and Semiskilled Workers.....	1,720	34.21	na	na

Table 59 (Continued) Surgical, Medical, and Dental Instruments and Supplies

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
All Other Laborers and Unskilled Workers	660	13.09	na	na
CLERICAL OCCUPATIONS, TOTAL	490	9.61	na	na
Accounting Clerks	70	1.31	47.29	69
General Clerks, Office	60	1.23	43.68	54
Production Clerks and/or Coordinators	40	.73	6.84	31
Secretaries	80	1.63	36.31	62
All Other Office Clerical Workers	170	3.30	na	na
All Other Plant Clerical Workers.	70	1.39	na	na
SALES OCCUPATIONS, TOTAL	130	2.49	na	na
Sales Representatives, Agents, and/or Associates	110	2.12	48.58	38
All Other Sales Workers	[2/]			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Accounting Clerks	69
Accountants and Auditors	62
Secretaries	62
General Clerks, Office	54
Mechanical Engineers	54

SIC 39
MISCELLANEOUS MANUFACTURING INDUSTRIES

The Miscellaneous Manufacturing Industries category, as defined by the U. S. Department of Labor, includes a high diversity of products and had employment of approximately 13,000 in May 1980. Over a three-year period, total industry employment increased 17 percent.

A large number of specialized manufacturers are represented in this total industry group. These employing units are generally small and widely scattered.

Seventy-three percent of the total industry's employment appears in two major groups: Toys and Amusement, Sporting, and Athletic Goods (SIC 394) and Miscellaneous Manufacturing Industries (SIC 399). As of May 1980, these two groups reported approximately 4,300 and 5,300 employees, respectively. This was a corresponding increase over the three-year period of 35 and 4 percent, a rather static change for the Miscellaneous sector.

As noted, and following patterns of similar industries, a very high percentage of the occupations fall under the Production and Maintenance category.

Table 60
SIC 394
Toys and Amusement, Sporting, and Athletic Goods

This group includes establishments primarily engaged in manufacturing dolls, doll parts, doll clothing, and stuffed toy animals; games, toys, and children's vehicles (except bicycles); and sporting and athletic goods, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT.....	4,330	100.00	na	na
MANAGERS AND OFFICERS.....	260	5.93	14.25	100
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL.....	170	3.97	na	na
Industrial Engineers.....	30	.72	21.18	13
Purchasing Agents and/or Buyers.	30	.76	27.63	35
All Other Engineers.....	30	.74	na	na
All Other Professional and Technical Workers.....	80	1.74	na	na
SERVICE OCCUPATIONS, TOTAL.....	40	.98	na	na
Janitors, Porters, and Cleaners.	30	.69	19.33	22
All Other Service Workers.....	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,310	76.55	na	na
Supervisors, Nonworking.....	60	1.44	27.17	39
Assemblers.....	1,140	26.56	6.49	48
Filers, Grinders, Buffers, Chippers, Cleaners, and/or Polishers.....	40	.97	40.99	13
Gluers and/or Cementers, Hand...	70	1.53	25.07	30
Grinding and/or Abrading Machine Operators, Metal.....	40	.86	37.91	13
Inspectors.....	50	1.11	5.97	13
Painters, Production.....	70	1.72	30.42	30
Production Packagers, Hand or Machine.....	70	1.62	44.02	22

Table 60 (Continued) Toys and Amusement, Sporting, and Athletic Goods

Occupation	Estimated Empl.	% of Total Empl.1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Punch-Press Operators, Metal.....	210	4.88	10.38	22
Sewing Machine Operators, Regular Equipment--Nongarment.....	50	1.09	18.96	13
Welders and/or Flamecutters.....	120	2.72	47.93	17
Wood Machinists.....	260	6.00	7.04	13
All Other Skilled Craftsmen and Kindred Workers.....	200	4.63	na	na
All Other Operatives and Semiskilled Workers.....	750	17.34	na	na
All Other Laborers and Unskilled Workers.....	180	4.07	na	na
CLERICAL OCCUPATIONS, TOTAL.....	460	10.55	na	na
Bookkeepers, Hand.....	30	.72	45.77	39
Secretaries.....	50	1.11	12.70	48
Shipping Packers.....	30	.69	15.65	35
Stock Clerks-Stockroom, Warehouse, or Storage Yard.....	30	.69	10.53	26
All Other Office Clerical Workers.	210	4.84	na	na
All Other Plant Clerical Workers..	110	2.49	na	na
SALES OCCUPATIONS, TOTAL.....	90	2.02	na	na
Sales Representatives, Agents, and/or Associates.....	80	1.88	35.37	30
All Other Sales Workers.....	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	100
Assemblers	48
Secretaries	48
Bookkeepers, Hand	39
Supervisors, Nonworking	39

Table 61
SIC 399
Miscellaneous Manufacturing Industries

This group includes establishments primarily engaged in manufacturing brooms and brushes; electrical, mechanical, cutout, or plate signs and advertising displays; burial caskets and cases; linoleum, asphalted-felt-base, and other hard surface floor coverings, not elsewhere classified; and miscellaneous fabricated products, not elsewhere classified.

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
TOTAL EMPLOYMENT	5,380	100.00	na	na
MANAGERS AND OFFICERS	490	9.19	4.11	94
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	240	4.33	na	na
Accountants and Auditors	40	.67	16.47	16
Designers	60	1.05	14.79	23
Drafters	50	1.01	18.02	18
Purchasing Agents and/or Buyers	50	.84	12.18	24
All Other Professional and Technical Workers	40	.75	na	na
SERVICE OCCUPATIONS, TOTAL	70	1.14	na	na
Janitors, Porters, and Cleaners	50	.84	13.60	19
All Other Service Workers	2/			
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	3,540	65.97	na	na
Supervisors, Nonworking	70	1.27	11.12	25
Assemblers	250	4.69	17.04	16
Cabinetmakers	30	.56	34.16	6
Casket Coverers and/or Casket Liners	60	1.12	22.49	7
Compositors and/or Typesetters	40	.78	41.92	5
Crane, Derrick, and Hoist Operators	100	1.95	19.15	17
Decorators, Hand	70	1.33	28.58	7
Electricians	180	3.39	30.82	13

Table 61 (Continued) Miscellaneous Manufacturing Industries

Occupation	Estimated Empl.	% of Total Empl.[1/]	Relative Standard Error (%)	% of Establishments Reporting the Occupation
Etchers and/or Engravers	40	.78	24.17	8
Fabricators, Plastics	160	2.90	12.32	28
Helpers, Trades	160	2.94	15.98	20
Lay-Out Markers, Metal	30	.56	45.71	5
Maintenance Repairers, General Utility	60	1.08	30.00	10
Painters, Maintenance	50	.90	24.55	10
Painters, Production	160	3.00	10.29	35
Press Operators and/or Plate Printers	50	.91	49.94	5
Production Packagers, Hand or Machine	160	2.90	21.98	15
Punch-Press Operators, Metal	40	.71	36.79	7
Screen Cutters and/or Makers, Non-Photographic	80	1.48	32.44	7
Screen Makers, Photographic Process	40	.71	23.53	11
Screen or Stencil Printers and/or Setters	160	3.05	23.81	25
Sewing Machine Operators, Regular Equipment--Nongarment	80	1.44	24.19	8
Sheet Metal Workers	140	2.53	21.83	28
Truck Drivers	60	1.07	14.61	15
Vacuum Plastic Forming Machine Operators	30	.60	19.12	10
Wax Pattern Workers	190	3.52	21.28	7
Welders and/or Flamecutters	70	1.35	16.67	19
All Other Skilled Craftsmen and Kindred Workers	170	3.15	na	na
All Other Operatives and Semiskilled Workers	520	9.74	na	na
All Other Laborers and Unskilled Workers	290	5.44	na	na
CLERICAL OCCUPATIONS, TOTAL	840	15.65	na	na
Accounting Clerks	70	1.37	14.00	22
Bookkeepers, Hand	40	.75	14.25	21
General Clerks, Office	100	1.91	30.12	27
Order Clerks	60	1.05	24.12	9
Production Clerks and/or Coordinators	40	.71	29.89	13
Secretaries	100	1.82	11.02	37
Shipping and/or Receiving Clerks	60	1.18	14.54	22
Shipping Packers	80	1.40	28.21	17
Typists	50	.91	19.17	16
All Other Office Clerical Workers	210	3.90	na	na
All Other Plant Clerical Workers	30	.62	na	na

Table 61 (Continued) Miscellaneous Manufacturing Industries

Occupation	Estimated Empl.	% of Total Empl. 1/	Relative Standard Error (%)	% of Establishments Reporting the Occupation
SALES OCCUPATIONS, TOTAL.....	200	3.72	na	na
Sales Representatives, Agents, and/or Associates.....	170	3.19	9.96	41
All Other Sales Workers.....	2/			

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

THE MOST COMMONLY REPORTED OCCUPATIONS IN THIS INDUSTRY AND THE PERCENT OF ESTABLISHMENTS REPORTING THEM ARE:

OCCUPATION	PERCENT
Managers and Officers	94
Sales Representatives, Agents, and/or Associates	41
Secretaries	37
Painters, Production	35
Fabricators, Plastics	28
Sheet Metal Workers	28

GLOSSARY OF TERMS

BENCHMARK EMPLOYMENT: A term which is used to identify specific employment figure(s) which existed at a particular point in time. In the OES survey program, the term benchmark is used in two ways: (1) It is the establishment or industry employment that existed at the time the sample was designed. (2) When estimates are made, it is used again to refer to the total universe employment for each estimating cell as of the reference date of the survey.

CURRENT EMPLOYMENT STATISTICS PROGRAM: A cooperating program between the Department of Labor, Bureau of Labor Statistics, and the participating states. The program's primary objective is the preparation of current monthly estimates, nonagricultural employment, and hours and earnings from sampled employers.

ES-202: A quarterly listing of employment and contributions of all firms covered under the Unemployment Insurance laws of Texas.

ESTABLISHMENT: An economic unit which produces goods or services; for example, a consulting service, a factory, or a store. In most instances, each establishment is a single physical location and is engaged in one predominate type of economic activity for which an industry code is applicable. Establishments are also referred to as reporting units.

ESTIMATING CELL: One size class in one industry.

SAMPLE WEIGHT: A numerical value that is assigned to an establishment during the sample selection. For example, if an establishment has an occupational employment of 25 and a weight of three, then for estimating purposes, the 25 employment will have a representation of 75 (3 x 25).

SAMPLING ERROR: The difference between data obtained from a sample and data which would have been obtained if the same survey methods were applied to collecting identical information from the entire population.

SAMPLING FRAME: The sampling units actually available to sample.

SAMPLING UNITS: The establishments selected randomly from the universe.

SIZE CLASS: The stratification of an industry by employment. For example, establishments with employment of 10-19 would be in one size class, and those with employment of 20-49 would be in another size class, etc.

STANDARD INDUSTRIAL CLASSIFICATION (SIC): A grouping of establishments primarily engaged in the same or similar lines of economic activity. In the Manufacturing Industry divisions, the line of activity is generally defined as any function that excludes Government, Nonmanufacturing, Regulated Industries, and Trade. Throughout this report, SIC's are correlated with a significant numerical designation. For example, SIC 20 is Food and Kindred Products; SIC 25 is Furniture and Fixtures, etc.

UNIVERSE: Total amount of establishments or units covered under the Texas Employment Security Law.

USABLE RESPONSE: All receipts which, after initial classification and schedule review, are judged to contain usable OES data.

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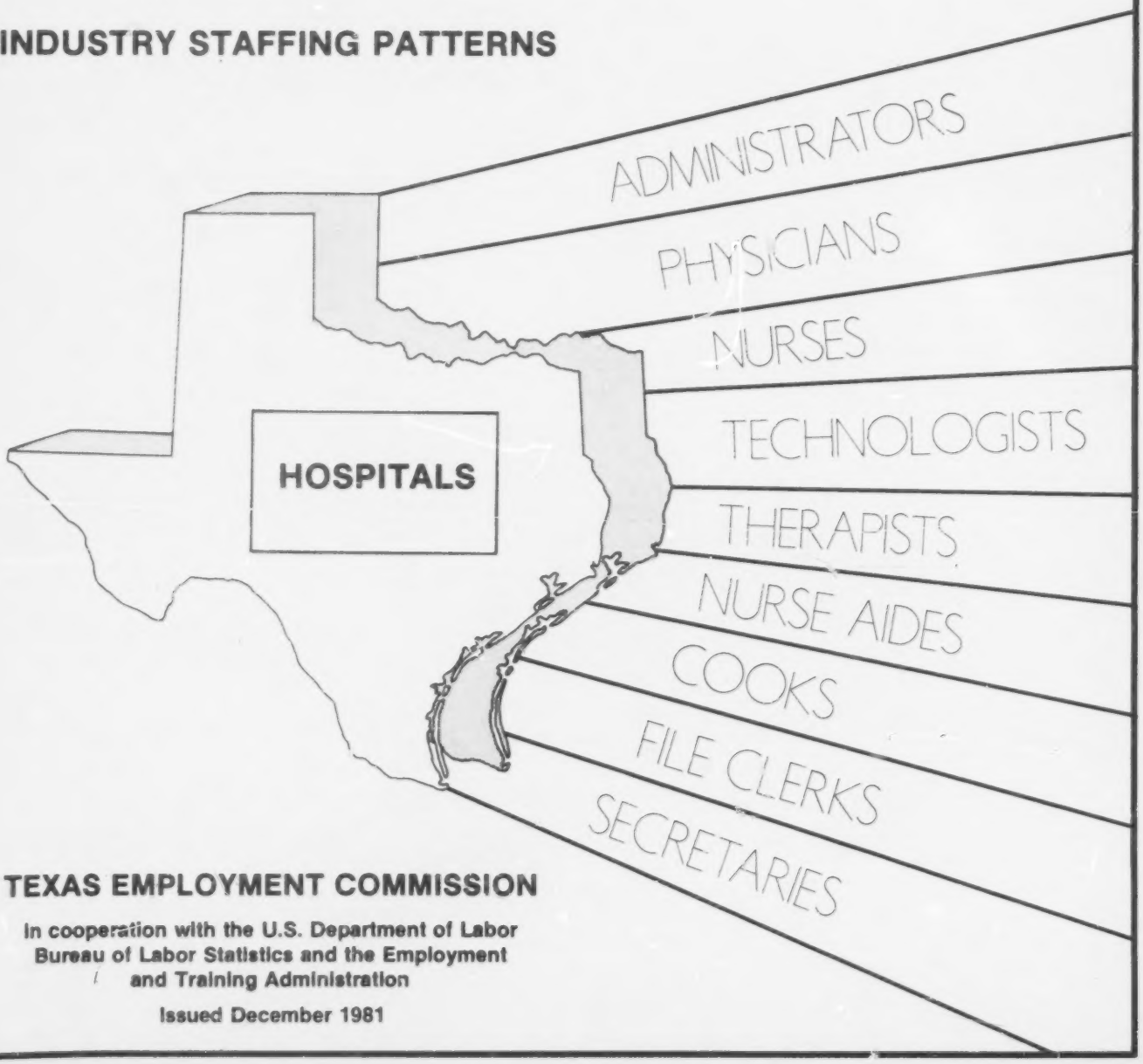
TEXAS OCCUPATIONAL EMPLOYMENT STATISTICS

INDUSTRY STAFFING PATTERNS



TEXAS EMPLOYMENT COMMISSION

In cooperation with the U.S. Department of Labor
Bureau of Labor Statistics and the Employment
and Training Administration

Issued December 1981

TEXAS OCCUPATIONAL EMPLOYMENT STATISTICS

INDUSTRY STAFFING PATTERNS FOR HOSPITALS

2nd QUARTER 1980

Prepared by
Texas Employment Commission
Economic Research and Analysis
TEC Building
Austin, Texas 78778

Issued December 1981

PREFACE

This publication summarizes the results of Texas' first endeavor to gather occupational information from the Hospital sector of the economy.

This report is the product of a Federal-State Cooperative Program. The Bureau of Labor Statistics developed the procedures and provided technical assistance. The Employment and Training Administration funded the project and was responsible for the administrative aspects of the program. The Texas Employment Commission collected the occupational employment data, analyzed the data, provided the necessary computer services, and published these findings.

We thank the Texas Hospital Association for their endorsement of this survey and the State Occupational Information Coordinating Committee (SOICC) for their initial pre-survey contacts with the Texas Hospital Association.

Special thanks are extended to the many cooperating employers who provided the survey data which made this publication possible.

TABLE OF CONTENTS

	Page
Preface	iii
Introduction	1
Methodology	2
Consideration of the Uses of the Estimates	3
Staffing Patterns for Hospitals	4
Glossary of Terms	11
Bibliography	12

INTRODUCTION

The Occupational Employment Statistics (OES) Program is a part of a Federal-State Cooperative Program involving State Employment Security Agencies in conjunction with the Employment and Training Administration and the Bureau of Labor Statistics.

The OES Program is designed to: (1) provide accurate profiles of occupational resources by industry and trends in the number of workers employed by occupation, (2) aid in projections of future manpower requirements by industry and occupation, and (3) identify emerging and disappearing occupations. This information will help in the development of educational training programs and will also provide valuable information for employment counselors and manpower planners. These data will be used to refine and modify the worker-demand projections generated through the Industry-Occupation Matrix System.

This report presents the occupational staffing patterns of Texas hospitals derived from data collected during the survey week of April 12, 1980.

This publication and other surveys for different sectors of the economy will be updated at three-year intervals to provide a better basis for decision-making at all levels of human resource planning and development.

METHODOLOGY

SAMPLE DESIGN

In the Hospital Survey, the Unemployment Insurance (ES-202) hospital universe file was used as the sample design. This sample design included private, State Government, and Local Government hospitals. Excluded were Federal Government and prison hospitals.

For this survey, the Bureau of Labor Statistics provided Texas with a supplemental universe based upon the National Center for Health Services (NCHS) Master Facilities File. This file was used to review the ES-202 universe file and to help provide a current and complete universe.

Comparing the two files could determine if any establishments were miscoded or missing from the ES-202 hospital universe. Any missing hospitals could then be added to the ES-202 universe. Also noted were: (1) establishments that did not show the hospital name or address on the ES-202 file, (2) hospitals listed with a slightly different name on each file, and (3) ownership denotation. The ES-202 file distinguished between private corporate or noncorporate ownership. The NCHS file only distinguished privately owned hospitals.

The Hospital Survey consisted of 552 hospitals with a represented benchmark employment of 172,654.

SAMPLING AND NONSAMPLING ERROR

By definition, this survey does not have sampling or nonsampling errors because a total universe was used.

COLLECTION PROCEDURES

All of the data was collected by mail. Survey operations included an initial mail out and one follow-up to nonrespondents. The telephone was used extensively to prompt nonrespondents to furnish survey data and to clarify respondent information. Personal visits were made to the larger nonrespondent hospitals.

CONSIDERATION OF THE USES OF THE ESTIMATES

All percentage estimates are carried out to two decimal places with the exception of the percent of establishments reporting the occupation. These percentages were rounded to the nearest whole number.

In this survey, many more occupations were surveyed than are actually shown in the table. Occupations which had employment of less than 30 were suppressed, and their employment was added to the residual category for their major occupational group.

STAFFING PATTERNS

HOSPITALS

Hospitals are the best known and largest single employer of health workers. In the broadest sense, hospitals can be grouped into two types: (1) general or short-term hospitals or (2) specialty or long-term hospitals. These hospitals vary in size and some have as few as 50 hospital beds while others have over 1,000.

The general hospital cares for patients who have varying medical conditions and require diagnostic and surgical or medical treatment. They are generally identified as "short-term" hospitals since patients are hospitalized from a few days to a few weeks. These hospitals are most likely found in a community and represent 87 percent of all hospitals.

The specialty hospital cares for patients who have a specific illness. These hospitals treat patients who have a psychiatric, chronic disease, or rehabilitation disorder. They are generally identified as "long-term" hospitals since patients are hospitalized for several months.

The general and specialty hospitals can also be identified by their ownership, whether it is a voluntary, proprietary, or government hospital.

The voluntary hospitals are nonprofit institutions which are privately owned by religious or nonreligious groups.

The proprietary hospitals operate for a profit, are usually small, offer limited medical services, and are most often owned by a hospital chain corporation or a group of physicians.

Government hospitals are operated and supported by the cities, states, or Federal government. Examples are a city or municipal hospital, a State psychiatric institution, or a Veterans Administration Hospital. Federal government hospitals were excluded from this survey.

HOSPITALS, THE PRESENT AND THE FUTURE

Texas continues to experience a shortage of allied health manpower. Although student enrollments have doubled in the last five years and in some areas the number of graduates has tripled, there is still a great demand for registered nurses, x-ray and lab technicians, respiratory therapists, physical therapists, and medical record technicians.

In the foreseeable future, these manpower demands will continue to exist due largely to the population growth and the expanding requirements for health services.

SIC 806
HOSPITALS

This group includes establishments primarily engaged in providing diagnostic services, extensive medical treatment including surgical services, and other hospital services, as well as continuous nursing services. These establishments have an organized medical staff, inpatient beds, and equipment and facilities to provide complete health care.

Occupation	Estimated Employment	Percent of Total Employment 1/
TOTAL EMPLOYMENT	145,710	100.00
MANAGERS AND OFFICERS	4,760	3.26
PROFESSIONAL AND TECHNICAL OCCUPATIONS, TOTAL	67,010	45.99
Accountants and Auditors	420	.28
Biochemistry Technologists	360	.24
Biological Science Technicians	90	.05
Blood Bank Technology Specialists	480	.33
Caseworkers	950	.65
Clergy	180	.12
Computer Programmers	120	.08
Dietetic Technicians	240	.16
Dietitians and/or Nutritionists	580	.40
Electrocardiograph Technicians	580	.39
Electroencephalograph Technicians	190	.12
Histologic Technologists	220	.15
Librarians, Professional	200	.13
Licensed Practical Nurses	15,520	10.65
Manual-Arts, Music, and/or Recreational Therapists	420	.28
Medical Laboratory Technicians	1,340	.92
Medical Laboratory Technologists	2,730	1.87
Medical-Record Librarians	610	.41
Microbiology Technologists	260	.17
Nurses, Professional	25,080	17.21
Occupational Therapists	380	.26
Personnel and Labor Relations Specialists	280	.19
Pharmacists	960	.65

Occupation	Estimated Employment	Percent of Total Employment[1/]
Pharmacy Helpers	1,090	.74
Physical Therapists	580	.40
Physical Therapy Assistants	660	.45
Physicians and/or Surgeons	1,440	.98
Psychologists	230	.15
Purchasing Agents and/or Buyers	330	.22
Radiologic Technicians	1,940	1.33
Radiologic Technologists and/or Nuclear Medical Technologists	960	.65
Respiratory Therapists	1,820	1.24
Surgical Technicians	1,540	1.05
Systems Analysts, Electronic Data Processing	150	.10
All Other Medical and Dental Technologists and Technicians	1,030	.71
All Other Professional Workers	1,190	.82
All Other Technical Workers	960	.66
All Other Therapists	900	.62
SERVICE OCCUPATIONS, TOTAL	43,040	29.54
Supervisors, Nonworking--Service	730	.50
Bakers, Bread and/or Pastry	110	.07
Child-Care Workers	220	.15
Cooks, Institution	1,850	1.26
Cooks, Short Order and/or Specialty Fast Foods	160	.10
Counter Attendants-Lunchroom, Coffee Shop, or Cafeteria	1,080	.74
Dining Room Attendants, Bartender Helpers, or Cafeteria Attendants	910	.62
Guards and Doorkeepers	1,010	.69
Housekeepers	760	.51
Kitchen Helpers	2,720	1.86
Maids	6,440	4.42
Medical Assistants	140	.09
Nurse Aides and/or Orderlies	17,970	12.33
Occupational Therapy Assistants	230	.15
Orthopedic-Cast Specialists	90	.05
Pantry, Sandwich and/or Coffee Makers	230	.15
Psychiatric Aides	3,190	2.19
Social Service Aides	270	.18
Waiters/Waitresses	170	.11
All Other Food Service Workers	1,540	1.06

Occupation	Estimated Employment	Percent of Total Employment 1/
All Other Janitors, Porters, and Cleaners	2,430	1.67
All Other Service Workers	790	.54
PRODUCTION, MAINTENANCE, CONSTRUCTION, REPAIR, MATERIAL HANDLING, AND POWER PLANT OCCUPATIONS, TOTAL	6,300	4.32
Supervisors, Nonworking	320	.21
Ambulance Drivers and/or Attendants	180	.12
Carpenters	240	.16
Electricians	210	.14
Electromedical Equipment Repairers	140	.09
Gardeners and Groundskeepers	360	.24
Helpers, Trades	210	.14
Laundry Pressers, Machine	650	.44
Maintenance Repairers, General Utility	1,000	.68
Mechanics, Maintenance	260	.17
Order Fillers	80	.05
Painters, Maintenance	230	.15
Plumbers and/or Pipefitters	110	.07
Stationary Boiler Firers	90	.05
Stationary Engineers	230	.16
Truck Drivers	170	.11
Washers, Machine and/or Starchers	420	.28
All Other Mechanics and Repairers	130	.09
All Other Skilled Craftsmen and Kindred Workers	280	.19
All Other Operatives and Semiskilled Workers	440	.30
All Other Laborers and Unskilled Workers	550	.38
CLERICAL OCCUPATIONS, TOTAL	24,440	16.78
Clerical Supervisors, Office or Plant	790	.54
Accounting Clerks	740	.51
Bookkeepers, Hand	240	.16
Bookkeeping and/or Billing Machine Operators	250	.17
Cashiers	910	.62
Computer Operators	300	.20
File Clerks	1,470	1.01
General Clerks, Office	2,720	1.86
Insurance Clerks, Medical	1,920	1.31
Keypunch Operators	530	.36

Occupation	Estimated Employment	Percent of Total Employment 1/
Order Clerks	240	.16
Payroll and/or Timekeeping Clerks	380	.26
Personnel Clerks	290	.20
Procurement Clerks	240	.16
Receptionists	1,190	.81
Secretaries	2,920	2.00
Shipping and/or Receiving Clerks	240	.16
Shipping Packers	70	.05
Statistical Clerks	350	.23
Stenographers	740	.51
Stock Clerks-Stockroom, Warehouse, or Storage Yard	910	.62
Switchboard Operator-Receptionists	540	.36
Switchboard Operators	1,090	.74
Typists	2,090	1.43
All Other Office Machine Operators	140	.10
All Other Office Clerical Workers	2,810	1.93
All Other Plant Clerical Workers	330	.23
SALES OCCUPATIONS, TOTAL	160	.11
Sales Clerks	140	.09
All Other Sales Representatives, Agents, and/or Associates	2/	

1/ Based on unrounded data.
2/ Estimate below cut-off level so occupations will not add to category total.

GLOSSARY OF TERMS

BENCHMARK EMPLOYMENT: A term which is used to identify specific employment figure(s) which existed at a particular point in time. In the OES survey program, the term benchmark is used in two ways: (1) It is the establishment or industry employment that existed at the time the sample was designed. (2) When estimates are made, it is used again to refer to the total universe employment for each estimating cell as of the reference date of the survey.

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